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**Original Communications.**

**REMOVAL OF HARDENED SECRETIONS FROM THE  
NASAL PASSAGES.**

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For those patients in whom the muco-purulent secretions have become so hardened, and adhere so tenaciously to the mucous membranes of the superior portions of the nasal and pharyngo-nasal cavities, that their removal cannot be accomplished by force of water inhaled from the palm of the hand, such other means must be resorted to as possess the required force.

There are three indications that must be fulfilled by the means employed to accomplish the removal of these hardened secretions, and cleansing the surface covered by them.

The first of these indications, is, that of itself, the means should cause no irritation.

All who have had even a few years experience in the treatment of this most tenacious disease, will see the necessity of making this indication a prominent one; one that is to measure not only the value of the means for making applications to these highly sensitive surfaces, but to measure the value of

the medicaments also that are to be applied to them. It must be constantly kept in mind, that increase of irritation and decrease of chronic catarrhal inflammation can never go on together.

The second indication: The means employed should throw the irrigating fluid upon every portion of the diseased surfaces.

The third: Force enough should be employed to remove the secretions from their places of lodgment.

It is almost needless to say, that whatever means may have been recommended, which will not fulfill these three important and indispensable indications should be discarded.

In discussing the value of the means employed, I will take such only of them as have been recommended by high authority during the last few years.

The Posterior Nares Syringe has been recommended and employed for this purpose, but even when patients have learned to handle this instrument carefully, it so frequently causes, by its application behind the soft palate, so much irritation, that they soon refuse to use it. Besides this, the throat of those patients whose nasal cavities most require to be cleansed by it, are always exceedingly sensitive to all such appliances, and because of the elevation and compression of the velum palati to the posterior wall of the pharynx, occasioned by this sensitiveness, the curved extremity of the instrument is pressed—in the endeavor to insinuate it behind the velum—against this wall with so much force that it soon occasions a pharyngitis even if none had existed before its applications, thus, not only maintaining, but increasing any inflammation that may exist in this region. Not unfrequently, in cases of severe pharyngitis, the application of the instrument is followed by a show of blood in the expectorations, which may continue for fifteen or twenty minutes afterwards. It is preposterous to expect that a naso-pharyngitis can be eradicated under such circumstances. It will require at least two weeks careful treatment to overcome the injury done by one such application.

One of the strongest advocates of this method of cleansing the nasal cavities, a specialist and a resident of an Eastern

city, applied this instrument daily for three weeks to a patient, who was himself a physician, each application caused a hemorrhage from the pharyngo-nasal cavity. At first the hemorrhages were slight, but they continued to increase, until at the end of three weeks, as much as a half teaspoonful of blood followed the withdrawal of the instrument, at the same time deglutition was so painful as to necessitate a soft diet. The patient was treated for a nasal catarrh, and a deafness in the left ear, but while the secretions in the nostrils were much lessened in quantity, the hearing was rapidly decreased. The practitioner informed his patient that the hemorrhages occasioned by the application of the instrument were beneficial to the mucous membranes, on account of their congested condition, but said nothing about the manifest injury done to the hearing that was occasioned by bruising the sensitive membranes in the neighborhood of the Eustachian tubes.

On account of the irritation caused by the application of this instrument, its use should be discontinued.

The apparatus that is most commonly resorted to, in such cases, is the Weber Nasal Douche. On account of the frequency of the employment of this means, both by the professional and non-professional, I will discuss its merits and demerits at some length, while examining as to whether it can or cannot fill the three indications that I have named.

Dr. Thudichum in his paper published in the London *Lancet* 1864, says: "All difficulties are removed at one stroke by the discovery of Prof. Weber, of Halle, [Germany,] that when one side of the nasal cavity is entirely filled through one nostril with fluid by hydrostatic pressure, while the patient is breathing through the mouth, the soft palate completely closes the channel, and does not permit any fluid to pass into the pharynx, while the fluid easily passes into the other cavity, mostly around and over the posterior edge of the septum narium, in some persons also the frontal sinuses, and escapes from the other open nostril, *after having touched every part of the first half of the cavity of the nose,\** and a great part certainly of the lower and median canal of the second half. By means of the

\*The italics are mine. R.

application of this principle to the treatment of diseases of the nose, it is possible easily and frequently to wash the nasal cavity, to disinfect and deodorize it, to remove the sordes which accumulate so easily in it, and to apply to its surface a great number of beneficial medicinal substances, so as to prevent acute affections from extending, and to incline them towards a speedy recovery; to stop hemorrhages, allay irritations, and subdue in a remarkable manner chronic affections of the Schneiderian membrane, *so as to re-establish perfectly healthy surface and normal condition of the organ of smell.*"\*

There is an uncommon amount of confidence expressed in the very forcible language just given. It is this confident tone, in which a seeming guarantee of a cure is given, that raised high the hopes of both the practitioner and the patient. It is not questioned but that this douche fulfills the first indication named, *i. e.*, it causes no irritation by its application. This is one of the good qualities that its friends have urged in its favor; it is not uncommon for them to apply to it the adage, which is so frequently applied to homeopathic remedies, namely; that if it can do no good, surely, by its simple action, it can do no harm. Whether the latter conclusion is true or not we shall be better able to see as we go along.

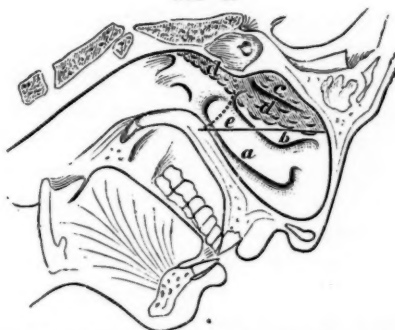
That Dr. Thudichum made a very great mistake when he said that the irrigating fluid touched every part of the nasal cavity—the second indication—may be proved most conclusively by the following experiment: First, cover the mucous membranes of both nasal cavities of the person upon whom the experiment is to be tried, with finely powdered starch, by insufflation, both in front and from behind the velum palati; next, incline the head forward, as recommended by Thudichum, and pass a weak solution of iodine and iodide of potassium through the nasal passages by means of the douche. The iodine solution will either discolor or wash away all of the starch within its reach; the discoloration will be the characteristic blue of iodide of starch. The effect of the washing may be seen by reflecting natural light upon a pharyngeal mirror, placed under and behind the pendant soft palate, and by inspection through the anterior nares. The washed or dis-

\*The italics are mine. R.



colored portion of the mucous membrane, and the remaining portion covered with white starch, will show that the greatest height that the iodine solution reached in the antero-superior portion of the cavity, was only a little above the anterior extremity of the middle turbinated process, (b. Fig. 1.) and that

FIG 1.



Antero-posterior section of the head and face, showing the turbinated processes *a, b, c*; *a, b*, the location of the encrusted secretions in the highest portion of the nasal cavity; *c*, the highest the water attains in the nasal cavity while using the Weber douche, with the head inclined forward. The dotted line indicates the position of the posterior border of the septum nasi.

only below a line drawn from this point to the lower surface of the posterior nasal opening (*e*) is washed, and that all of that portion of the surface above and posterior to that line (*d, d*), is not washed, the white powdered starch remaining plainly in view. In other words; the solution, flowing into the nasal cavity, rises until it reaches a level that is on a horizontal line (*e*) with the inferior surface of the posterior nasal opening of the side in which the liquid is introduced, then, instead of rising higher, upon the introduction of more fluid, it will flow around the posterior border of the septum narium, over that portion of the soft palate which joins the hard palate into the other nasal opening, and thence out through that nasal passage.

Thus, it is seen, that instead of fulfilling the second indication, *i. e.*, "touching every part" of this cavity, as asserted by Thudichum, but a little more than the lower half of it is touched, and it is that half, too, which is very rarely incrustrated or requiring treatment; the upper half, the region whence all of the secretions flow that find lodgment in the inferior

portion of the passage, remains untouched, and hence uncleaned.

In the other nasal passage, the floor only, not the middle meatus also, as Dr. Thudichum has made us believe, will be washed by the liquid as it escapes.

It is a mistake to suppose that the elevation of the soft palate against the posterior wall of the pharynx will cause the fluid to rise higher in the nasal cavity than the line indicated, because the liquid has still the same avenue for its escape, namely, through the other posterior nasal opening; nor is the closure of the communication downward into the pharynx, a provision by nature, as asserted by the advocates of this method, to allow a more rapid flow of the current into the cavity; nor, indeed, can the nasal fossæ be filled by the closure of the other nostril, because the effect of both of these acts will be to cause the liquid to rise higher, but before the cavity is filled a part of the fluid will flow upon the soft palate, and its presence on this sensitive organ will occasion involuntary deglutition, which will be instantly followed by a sense of strangulation, because the liquid which gave rise to this sensation is not swallowed, but falls down into the open larynx, then a choking sensation of a severe character follows. Even if more of the surface is touched by this forced irrigation, the time during which the liquid is in contact with the higher portion of the cavity is so short that it cannot be effective.

Now, where are the hopes that Dr. Thudichum raised, when he said, that by this means it is possible "to re-establish a perfectly healthy surface, and a normal condition of the organ of smell."

It will appear manifest to all who have studied the anatomy of this portion of the head, that it is not the elevation of the soft palate, nor, the closure of the passage into the fauces, nor the closing of both nostrils, but the position of the head of the patient that governs the amount of surface touched by the water. The nasal cavity, while the head is erect, will not retain a liquid any better than a tea cup while lying on its side, but the more that the head is inclined forward, until the posterior border of the septum nasi (dotted curved line) is placed

in a horizontal position, the greater will be the quantity of fluid contained in the cavity. But should the douche be employed while the head is in this position, a far more serious inflammation will be set up in other cavities of the head than the one that is being treated, for a part of the irrigating liquid will pass into the antrum of Highmore and a part of it into the frontal sinus, through openings under the middle and superior turbinated processes.

Even if the irrigating fluid did touch every part of the nasal cavity, still it does not fill the third indication, for the stream, as it *must* flow gently, or else involuntary deglutition will take place, does not have force enough to remove hardened secretions, as they are remarkable for the firmness with which they adhere to the place of formation, *i. e.*, in the neighborhood of the superior and middle turbinated processes. Even if two or three gallons of fluid were to be employed—which quantity I have used on several occasions—the time occupied in its passage is not long enough to soften and remove them, yet, by the time that this quantity of liquid ran through the passages, of my patients, the healthy mucous membranes absorbed so much of it as to cause occlusion of the passages to such a degree that they were compelled to breathe through the mouth. After several such applications, such a degree of tenderness was produced, that the least exposure to a cold atmosphere brought on an attack of acute catarrh of portions of the cavity heretofore unaffected.

Although I believe that I have plainly demonstrated that the Weber Douche is inefficient, and might consider that this is a sufficient reason for discontinuing its use, yet I will show that in addition to its inefficiency, it has an injurious effect upon every patient that employs it, by its insidiously spreading the chronic inflammation upon unaffected parts, and that upon some its injurious efforts manifest themselves suddenly and severely.

Before instancing the cases in which the injuries were sudden and severe in character, I must say that the number of persons thus affected, is remarkably small in proportion to the large number who have used and are daily using this method.

There certainly is a very *large* number of persons who are employing this means for cleaning their nasal passages; as fast as one set discontinues its use, after finding out that it does not fulfill their expectations, another set commence it, and yet the cases of acute inflammation of the cavities connected with the nasal passages, that arise from it, *are not* at all frequent. I am now treating a patient who commenced to use this douche in March, 1871, washing his nostrils by it from one to three times, and sometimes as high as four and five times daily; he very rarely passed a day without using it, making in all, certainly, about three thousand applications. Two times during this period, he experienced painful sensations in his ears; four or five times he experienced a painful sensation in his left cheek, showing that the left antrum of Highmore was injuriously affected by it.

It is seldom that I treat a catarrhal patient who has not, in his endeavor to rid himself of this disease, used this douche a great many times, yet it is seldom that complaint is entered against it, on account of any injury received from it, that is, one that the patient or his physician would call an injury; I mean such an injury that would develop itself suddenly, or show itself by symptoms of a marked character; so small, indeed, is the number of cases whose ears and sinuses receive injury of this character, that, in my opinion, were the method as effective as claimed by Dr. Thudichum, it should not be discontinued on account of its effect upon these cases.

It is not because that this method, now and then lights up an acute inflammation in comparatively few cases out of the thousands who use it daily, almost without instruction or warning, that I would condemn it, but it is, on account of the injury that the water does to the healthy surfaces without, at the same time, benefiting the unhealthy or catarrhal surfaces.

The application of water or of any fluid, except mucus, to the nasal cavities, is always productive of more or less injury to its healthy mucous membranes, but this injury is more than compensated, if, by the application, vitiated and irritating secretions are removed, which could not have been done without its

aid; but if these secretions are not removed during its application, then the injury done by the water to the healthy parts is not compensated for by any benefit done to the inflamed parts, but on the contrary, the condition of the patient is gradually, almost imperceptibly, made worse by the healthy mucous membrane being prepared, by the frequent absorption of water, so that it more readily takes on a catarrhal inflammation. This is the injury that should deter every one from employing this means. I am quite certain that fully ninety-five per cent. of my patients, who have used this douche, have not only maintained their catarrh by it, but by it caused the chronic inflammation to extend to other parts of the cavity, as well as to other cavities.

It will be seen that what I have said about its liability to set up a chronic inflammation in other cavities, is almost in accordance with Dr. Roosa's experience, given in his work on the ear. He says: "As early as 1869, I had found that the nasal douche was sometimes a troublesome and dangerous appliance, and I added a note to indicate this in my translation of Von Troeltsch on the ear, [second edition, page 369,] but I was not fully convinced that it would readily cause acute aural inflammation until the following case occurred in my practice. \* \* \* Besides, as it is believed by many otologists, it is possible that the douche sets up a chronic inflammation of the tympanic cavity, without any acute stage, and thus the true cause of an insidious chronic catarrh is passed over and supposed to be an advance of the naso-pharyngeal inflammation. Of course it is not believed by the author that the use of the nasal douche will *necessarily* cause aural disease, but that it is a dangerous means of treatment, which should be carefully watched by the practitioner."\*

Although Dr. L. Turnbull is a strong advocate of this method, yet it is evident that the facts which he records in his work on the ear are also in agreement with what I have said. He says: "There are some important cautions to be observed: first, the fluid must be of the temperature of the body, [about 96°]; second, the patient must breathe gently with the mouth

\**Dr. St. John Roosa on the Ear*, 1873, pp. 291-295.

open; and lastly, must not swallow, else the fluid will pass into the middle ear and cause the following results, well told by a patient in the following letter from Frederica, Delaware:

'MY DEAR SIR:—I find on using the nasal douche as recommended by you, that it affects me somewhat unpleasantly. I find no difficulty in passing the water as directed from one nostril to the other, or back into the throat. On passing the water into the throat the Eustachian tubes apparently are also filled, and give the same sensation I have experienced, when a boy, in swimming, and what we used to call "bubbles in the ear." I cannot free my head of the water taken in for some four or five hours after using the douche. I then feel as if I had taken cold. My ears feel sore, pressing the tips of the fingers into the external ear causes a dull pain, apparently about the drum of the ear. This passes off in about twelve hours. . . . I am much more deaf than usual for some hours after using the douche. Yours respectfully,

J. R. H.'

"To this form of medication there are some other objections which have been made by Professors Roosa and Knapp; viz., that otitis media may supervene, and perforation of the membrana tympani be caused by excessive sneezing, the result of using the douche; but no such results have followed the extensive use of this most valuable means employed by the author in hundreds of cases, both of ear diseases and of ozæna with or without deafness."\*

Instead of its being a most valuable means, as claimed by Dr. L. Turnbull, the experiment with the powdered starch and iodine solution demonstrates that it is really valueless, except so far that it makes it possible for those patients who suffer from profuse catarrh to breathe with some degree of comfort, by its removing the secretions that occlude the inferior portions of their nasal passages. It is because of this relief that patients express themselves as pleased with the method. Besides this, the effect of the warm fluid is always pleasant to those patients, even if the whole of the diseased surfaces are

\**A Clinical Manual of the Diseases of the Ear*, by Laurance Turnbull, M. D., 1872.

not bathed by it. I have noticed for years that the expressions of benefit or relief almost invariably come from those patients whose nasal cavities were plugged by inspissated secretions, and who suffer in consequence of the heat arising from the inflammation, and not from those whose catarrhal complaint allows a free passage for breathing, except at such times as they suffer from an unusual amount of irritation occasioned by a recent cold.

It is very common for physicians, in reporting the favorable result of the application of this douche in a very bad case, to say, as Dr. Thudichum said: "It is really surprising what an amount of sordes will sometimes be removed from the nose by this rinsing process," or "that great masses of hardened, offensive secretions are washed out, and that this relieved the patient of an ever present weight in the head." Such expressions as these lead the reader of the report, as it led me, to presume that if this method of treatment will produce so marked, so beneficial a result upon so bad a case, it will certainly cure a case that is but slightly affected. But the fact is, so far as relief is concerned, the very reverse of this is true; the cases of profuse catarrh are relieved, but not cured, and the slight cases are injured by it, without experiencing any relief.

That this method will remove the secretions that are situated in the inferior and anterior portions of the cavity, (a. b. Fig. 1.) is not doubted, but this is all that it will do, its usefulness ends here. This removal has the effect to give the patient breathing room only, the disease is not even checked. The larger half of the treatment that is to cure the case, is to remove, completely, the secretions from every portion of the cavity, this, the douche cannot do. The portions of the cavity that are the most important to be cleansed, are the superior portions, (d. d. Fig. 1) because the disease originates in this locality, consequently there always is secretion on these surfaces. There are many cases, severe ones too, in whom the lower portion of the passages is entirely clean and healthy, which requires no applications of water, but will be injured by the absorption of the water, if it is applied every day.

I will now relate a part of my experience in the employment



of this douche, that I may be enabled to give the history of the circumstances by which I discovered the inadequacy of its applications. Following this, I will give brief histories of those cases who were injured by its applications.

In January, 1863, while located in the U. S. Gen. Hospital, at Jefferson Barracks, Mo., I had two patients under my care who were suffering from nasal catarrh. I directed them to wash out their nasal passages with various solutions, by means of Matison's soft rubber syringe. Other soldiers, noticing the applications, requested to be treated for a similar complaint. During this year and the following one, I treated, or attempted to treat, in all, sixty-eight patients.

The failure to do more than maintain a passage through the nostrils, added to failures that occurred years before, on several cases similarly affected, induced me, in January, 1865, to open a correspondence with a class-mate in Boston, who had recently visited the hospitals in London and Paris. From him I learned of Dr. J. L. W. Thudichum's article on a "New Mode of Treating Diseases of the Cavities of the Nose," which appeared in the London *Lancet*, of November and December, 1864.

These articles contained a full description of the Weber Nasal Douche, and gave a list of remedies to be used. Their tone was so confident and so assuring, that I was ready to conclude, with my friend, that at last we had the means of combating this complaint, which had heretofore baffled all endeavors. At the time of the reception of the two numbers of the *Lancet*, I had six cases of nasal catarrh in my ward, so certain was I of curing them by this method, that I wished that I had sixty cases instead of six.

The patients, at first, were much pleased with the effects of the washing, and I could see that the prominent symptoms were much abated.

In a few weeks, I noticed that it was those patients only, whose nostrils were very much filled by sordes during the night that continued to give the most favorable reports. About four months after I commenced to use this mode of treatment, one patient, on whom the douche had been used about three

weeks, refused to have it applied because, as he claimed, it caused intense pain in the left side of his face, in the upper jaw and also in his forehead. Soon after this, another patient informed me that it had the same effect on him, and, moreover, that the secretions from his nose and throat were more profuse than at any time during his life, his catarrh being but a slight one when I commenced to douche him. The first patient that was injured by the washing had an inflammation of the antrum of Highmore on the left side, he insisted that the douche caused it, but I did not think so at the time, because, on examination of his teeth, I found that the second upper molar, whose fang sometimes penetrates into the antrum, was decayed. I extracted this tooth and treated the diseased antrum through the opening made by the tooth. The case, so far as the diseased sinus was concerned, recovered in about five weeks.

As I considered that the decayed tooth originated inflammation of the antrum, I recommended that the patient should use the douche again. He did so, and had four applications, when a very severe inflammation of the antrum again ensued, from this he recovered after about two months close attention. The second case in whom the antrum was involved, did not require any special treatment; I merely let him alone; and in a few weeks he too, recovered, his catarrhal symptoms also improved slightly upon non-interference.

I discovered about this time that while the douche had a good effect on those patients whose catarrh was very profuse, it proved an injury to all cases in whom the secretions were always in a fluid condition and were but small in quantity.

In order to ascertain the reason of this peculiarity, I made an examination, post mortem, of a patient who had died suddenly of a paralysis: he had a very profuse catarrh, and had been treated by the douche about three months. The applications were made daily for ten days, then at such times as the secretions demanded removal, which was about every other day. The treatments gave so much relief when first employed, that he expressed himself as being quite certain that they would ultimately cure him. He had frequently stated that he

had never used anything that had so good an effect on him as the douche of warm salt water. I was astonished to find, during the post mortem examination, that the posterior portion of the superior half of the nasal cavities (d, d, Fig. 1) were incrustated with old and offensive secretions, although the passages had been washed out, in accordance with his request, about six hours before he died, and that he had been regularly douched from the commencement of the treatment.

Having made an antero-posterior section of the head, I made a large opening in the septum nasi and placed over this perforation, a piece of window glass large enough to close the hole, then I inclined the head forward, as recommended by Thudichum, inserted the rubber tube into the nostril and caused water to flow into the cavity, in the same manner that I had done in the treatment of my cases. Through the glass septum, I saw that the water was maintained in the cavity at that height only that was on a level (e, Fig. 1) with the lower border of the posterior nasal opening of the side douched, therefore the irrigating fluid could not wash the superior and posterior portions of the nasal and pharyngo-nasal cavities (d, d, Fig. 1); it could wash the inferior and anterior portions only a, b, Fig. 1). This experiment at once solved the mystery of this form of douche being beneficial in cases of profuse catarrh, but never checking entirely the formation of the purulent secretions either in severe cases, or in mild ones. I had then used the Weber Douche eight months, (Sept. 1865 making from five to twenty applications of it every day, and was satisfied that it had gained its reputation from the relief that it had afforded to patients who were suffering with profuse secretions and large incrustations.

As the medical journals continued to praise this method, and as it was the best means known for alleviating bad cases of this disease, I continued its employment until June, 1866, at which time I had two patients (then in private practice) whom I injured by its use. One of them suffered so severely from otitis media that I perforated the membrana tympani; the other had an inflammation of the antrum of Highmore. At this time, partly at the suggestion of a patient, I began to

recommend, instead of the douche, the inhalation of water from the palm of the hand, while the head was inclined forward, as recommended in a previous article.\*

In September, 1868, I drew the attention of the members of the St. Louis Med. Society to the deficiencies of this douche, by drawings on the blackboard, demonstrating the manner in which the irrigating fluid failed to reach the superior portion of the nasal cavity, and at the same time mentioned two cases which I had treated that year, whose ears were injured by means of this apparatus. In both of those cases a perforation of the membrana tympani had taken place; one of the patients was seriously ill for a period of four weeks from an inflammation of the mucous membrane of the mastoid cells.

In 1869, I treated two cases whose ears were affected injuriously by the douche, on one of whom the mastoid process was greatly swollen, which was relieved by a free incision.

In 1870, I had five cases who were injured by this apparatus. I took the pains to inquire whether or not they had informed the physician who had recommended the douche, of the bad effects of the treatment, and learn from them that they had not done so.

In 1871, I had only one case that was injured by the douche. He had been using the apparatus for about four years, and had repeatedly experienced sensations as if the water had passed in both ears. He had noticed that the solution passed into the ears at such times as he had a cold in the head. He informed me that he knew of several of his acquaintances who were affected in the same way, "but," he said, "each of us had ear-ache when we were young, and I thought that the ear-ache had made our ears weak."

In 1872, I treated four cases from injuries done by the douche. Three of those cases were but slightly affected in the ears; two of the three had otorrhea when young, the third one had no affection of the ear except from the use of the douche. The fourth case was affected in the left antrum of Highmore, a molar tooth, which was partially decayed, was extracted to afford an opportunity to treat the cavity.

\**Chicago Med. Jour. and Examiner*, vol. 34, page 385.

In 1873, I had two cases, both of whom had otitis media, but neither very severe. No history of previous complaint of otorrhea, but both were quite defective in their hearing before using the douche.

In 1874, I had six cases who had otitis media from the use of the douche, and two cases in which the antra were affected injuriously by this apparatus. All of the cases were mild ones.

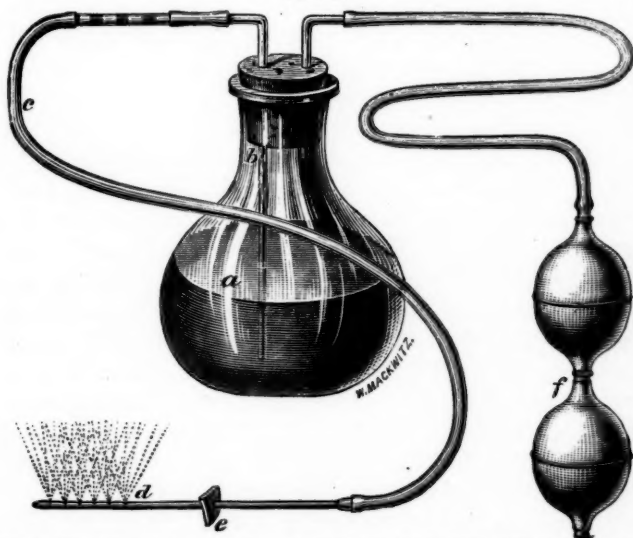
In 1875, I had three cases of otitis media from the use of the douche; in one of these cases, which was severe, there is a history of a previous affection of the ear. The hearing of all of the cases was quite defective.

In 1876, I had seven cases of otitis media, and one of inflammation of the antrum of Highmore, and one of inflammation of the frontal sinus. The hearing of the seven ear cases was defective before the use of the douche, but much more so after it had caused inflammation of the middle ear. In two cases I perforated the membrana tympani; in one of those the perforation closed in four days, in the other in about three months. In the case of the inflamed antrum, I had a second molar, which was decayed, extracted to allow the escape of the pus. The case with the inflamed frontal sinus was very severe, the lower portion of the forehead was greatly swollen, and very red. The pain was so great as to prevent sleep for three days.

I have noticed a fact, connected with the history of nearly every one of my cases, which to a certain extent mitigates the blame that is attached to this method, that is, to its exciting acute inflammation in distant parts. The fact alluded to is, that their ears and antra were in a more or less inflamed condition before the application of the douche. In all ear cases, even if there had been evidences of a diseased condition—except in those who suffered from perforation of the membrana tympani—if they desisted from performing the act of deglutition, thus preventing the entrance of water into the middle ear, the employment of the douche did not produce acute inflammation. The ears of those patients whose membrana tympana were perforated, were unaffected by the douche, even

if the act of swallowing was performed while the water was in the pharyngo-nasal cavity. I think that it is barely possible for water to enter a middle ear, if its membrana tympani is perforated. I have not seen nor heard of a case in which it did do so. I have also noticed that those patients whose ears had not manifested any symptoms of a diseased condition previous to the use of the douche, did not volunteer complaints of its bad effects, even when the water did enter their ears. But, from my observations, I should expect that in *every* patient whose ears were affected by an *acute* inflammation—except in those in whom the membrana tympani were perforated—

FIG. 2.



Catheter Nasal Douche: *a*, container; *b*, metal tube for passage of the liquid, the *latter* is placed beside a small aperture in the side of this tube, allows the entrance, of air; *c*, hose composed of rubber and glass tubing; *d*, catheter with foramina, for the escape of air and liquid; *e*, triangular piece of soft rubber; *f*, India rubber air bulbs used to force air into the container *a*.

all of the acute symptoms would be suddenly aggravated, if they performed the act of deglutition while employing the douche.

Even if it were possible to determine those patients who should not use this method of cleansing the nasal passages,

this fact ought not to be urged against its employment, if it had a salutary effect on all of those cases whose ears and antra were uninjured by it; but when it proves a serious injury to some patients, and when it signally fails, in every patient, to reach the locality in which the disease *originates*, thus returning no compensation for the injury that it must do to *uninflamed membranes, by their absorbing water*, then, most certainly, it should be discontinued.

After observing the inadequacy of the Weber Nasal Douche, I devised an apparatus in June, 1867, which I have called the Catheter Nasal Douche, (Fig. 2). It throws a shower or coarse spray of liquid from the floor of the nostril upward, reaching every portion of the irregular surface of the cavity, making perfectly efficient and direct local application. When warm salt water is used, the only sensation it occasions, is that of tickling, which is never objected to by the patient.

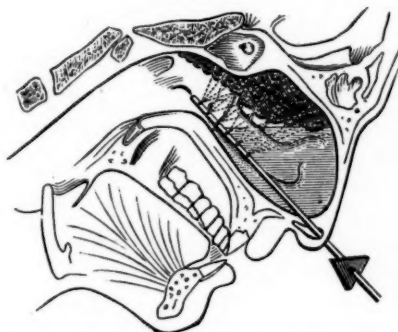
The apparatus consists of the following parts: The vessel that contains the cleansing fluid is a flask-shaped bottle (a, Fig. 2) of a pint or a pint and a half capacity; into the soft rubber stopper of this bottle are inserted two metallic tubes, whose outer extremities are bent at right angles, and turned in opposite directions. One of these tubes is short, but long enough to pass through the stopper, and has attached to its outer extremity a pair of India rubber air bulbs (f); the other metal tube (b) almost reaches the bottom of the container. Attached to the outer extremity of this tube is a hose (c), about twelve inches long, a part of which consists of soft rubber and a part of glass tubing, the latter section of tubing is about three inches long, and is inserted in the first third of the hose. To the outer extremity of the hose is fastened a No. 5, or No. 6, flexible catheter (d) six inches long, at the further end of which are made five small openings in a line with its axis, three-eighths of an inch apart. The free extremity of the catheter is closed. A perforated triangular plate (e) of soft rubber, with one inch borders, is slipped on the catheter about three and a half inches from the closed extremity. This plate will prevent the liquid from flowing on the operator's hand, and at the same time it will serve as a guide both in regard to the direction of



the stream and the distance that the instrument is inserted into the nostril (Fig 3).

The metal tube, whose lower extremity dips into the fluid in

FIG. 3.



Antero-posterior section of head showing the introduction of the catheter and the direction of the coarse spray.

the container, has a small aperture in its side, just under the rubber stopper. This aperture is to allow air to enter during the passage of the liquid up the tube, the effect of which is to cause it to contain beads of air and fluid alternately. These beads of air and liquid should be equal in size, about one-half of an inch long. When the air and solution escape from the opening in the catheter (d), it will resemble a coarse spray. The relative size of the beads and water may be ascertained by suddenly arresting the current in its passage through the hose, by compressing the rubber tubing near the catheter, and inspecting at the glass section of the hose. If the air beads are relatively the larger, then the aperture (b) under the rubber stopper, in the long metallic tube, is too large; if the air beads are smaller than the water beads, then the aperture is too small. In either case the aperture should be so made that the beads will be about equal in size.

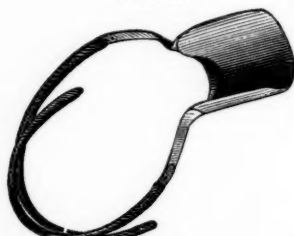
In its application, the catheter is introduced horizontally into the nasal cavity to be cleansed (Fig. 3). The coarse spray or spattering current of liquid and air is made to pass directly upward; by slight rotation of the instrument on its axis, the stream will wash and blow the secretions from their lodging

places under the turbinated processes, and in the highest portion of the cavity, in a much milder manner than a steady stream from any form of a syringe applied either in the anterior or posterior nasal openings, and in a much more efficient manner than the Weber Nasal Douche.

The cleansing process may be greatly assisted by the patient closing the nostril not treated, and then giving a quick and forcible blow out of the one that is being washed, this will expel the liquid and everything loose with considerable force.

A nasal guard, (Fig. 4) fitted on the head so that it may be

FIG. 4.



Nasal Guard.

placed under the nose, will prevent the irrigating solution and the muco-purulent secretion from falling on the lips, and from soiling the clothing at such times as the patient is blowing his nose.

This apparatus, if care is taken not to force too much air into the reservoir, fills all three of the indications that are required to properly cleanse these cavities. 1st, It does not produce irritation; 2d, it throws the irrigating fluid to all parts of the nasal cavity, even under the turbinated processes; and, 3d, it has force enough to remove all of the hardened secretions, and cleanse the surfaces after they are removed. This force is completely under the control of the patient or the person employing the apparatus, so that the coarse spray of air and liquid may be caused to strike the secretions with such force only as is required to remove them, and after the removal, the force may and should be lessened, to complete the cleansing.

The amount of fluid that is employed is a matter of great importance. We must keep in mind that the mucous membranes, especially that portion of them that are in a healthy condition, absorb to their injury more or less of every liquid that comes in contact with them; for this reason the application of the water should be discontinued just so soon as the hardened secretions are removed, even if the washing process produces a pleasing sensation. If the washings are protracted, the healthy mucous membranes in the lower portion of the nasal cavities will absorb so much water, that they will become swollen, in which condition they are more liable to be injured by the influences of out-door atmosphere.

If at any time the force of the stream is such as to produce a painful sensation, which lasts beyond one or two seconds, then the washing should be discontinued, even if the passages are not entirely cleansed. If the disagreeable symptoms pass off in a few seconds, the washing might be commenced again, but with such force of the stream as to produce no disagreeable sensation; if the pain occasioned by the first effort, lasts beyond one minute, then the washing should be deferred for several hours.

The washings should be done in the morning before breakfast, and repeated often enough to keep the passages free of hardened secretions, but each time using as *small an amount* of fluid as will accomplish the cleansing process.

As soon as the secretions cease to become hardened, the washing by the Catheter Nasal Douche may be discontinued, and the inhalation of the water from the palm of the hand substituted, as the latter mode is sufficiently effective, and is accomplished with much less trouble.

The irrigating solution is made by dissolving in a pint of water, that is a little warmer than blood heat, about one teaspoonful of common table salt. Patients will soon learn from experience whether or not this is the proper strength and temperature. Water either without salt or with too much in it, produces more or less pain, yet, with the right quantity (which varies slightly with different individuals), it produces

a pleasant, bland sensation. Cold water causes a disagreeable as well as an injurious effect.

For those cases in whom the secretions are offensive, five grains of salicylic acid should be added to the pint of solution.

## DANGER FROM HYPODERMIC INJECTIONS.

By E. FLETCHER INGALS, M. D.

[Lecturer on Diseases of the Chest and Physical Diagnosis.—Rush Medical College.]

I have often used hypodermic injections of morphia, and always with good results, until a few weeks since, when I obtained alarming results from the administration by this method of one-fourth of a grain of morphia.

The patient, in consequence of continuous watching with sick children, had become debilitated, and as a result, suffered at times from severe pains of a neuralgic character.

I was called in the night to see her in one of these attacks. The pain had commenced about twelve hours previously, and with frequent exacerbations, had steadily increased in severity until it had become unbearable.

I dissolved one-fourth of a grain of morphia in pure water, and administered it under the integuments on the outer side of the arm. Within a few seconds the breathing became stertorous, the pulse failed, the lips and countenance became livid, and the eyes were set; respiration ceased, the radial and cardiac pulsations were lost, and the heart sounds could not be distinguished. The woman was to all appearances dead. How long this condition continued I cannot tell; it seemed an age, but was probably only ten or fifteen seconds, for by prompt means I succeeded in resuscitating my patient.

After a few minutes she expressed herself as much relieved. I remained with her some time, and then left careful directions with the husband in case any other unfavorable symptoms should occur. During the next few hours the patient fainted twice, but she was restored by dashes of cold water in the face.

This case called to mind what I had recently heard from Doctor Wenger, regarding the use of hypodermic injections. I wrote him, requesting notes of accidents which had fallen under his observation, and he kindly sent me the following reply:

GILMAN, ILL., June 4, 1877.

E. F. INGALS, M. D., Chicago.—*Dear Doctor* :—Your favor of the 29th ult. received and contents noted. I am very glad that your attention has been called to the subject of injecting morphine into the system. I have used it myself, but never without some fear; fortunately I have not had any bad results from it, and think I never will. I herewith send you a hastily prepared paper on the subject, which you are at liberty to use as you think best. The last case mentioned was my mother-in-law, the physician a most excellent man; the disappointment, remorse and regret that will follow him through life, is enough to deter any man from ever using the instrument, that knows anything about the case.

Very respectfully yours, E. WENGER.

The paper reads as follows:

That medicine will enter the circulation by absorption from blistered surfaces, and produce its constitutional effects, has been known for a long time, but the introduction of medicine into the system hypodermically, by mechanical means, is, I believe, of rather recent origin. And so popular has this new plan of administering medicine become, that almost every physician is armed with a hypodermic syringe, ready to perform the squirting operation upon his patient for almost every ache or pain, and I believe the profession generally sanction it as a safe and harmless means of relief, especially the young and more enthusiastic.

To condemn the practice as pernicious and unjustifiable, would be rather a bold step just now, but I desire to call the attention of the profession to a few cases that have come under my observation, the results of which have been sufficient to convince me that to inject morphine into the circulation is dangerous, and should never be done when there is any possible means of giving it in any other way.

Case 1. I was called to see a woman in her fifth confinement. On my arrival, found her in convulsions. Another physician had been called, who arrived in a few moments. I; at once suggested bleeding. The doctor had just bought a hypodermic syringe (the first I had ever seen), and suggested the injection of morphine, to which I assented. The effects of the convulsion, or the injected morphine, brought on a heavy stupor with slow, stertorous breathing, from which she could

not be aroused. I delivered her with the forceps. She slept on until she breathed her last.

Case 2. An old gentleman was suffering with rheumatism; he was attended by a promising young physician who had gained some notoriety by the use of the hypodermic syringe. He injected morphine on this occasion, and in a few minutes became alarmed at the condition of his patient. He at once sent for another physician, who, on his arrival, learned the condition of things. Noble-hearted man that he was, to save the young man's reputation, he pronounced it a case of apoplexy. By prompt and persevering treatment, he succeeded in saving the old man's life. He then advised the young man in a friendly way, to be a little cautious how he used the squirt in the future.

Case 3. Mrs. W., aged about 56, had pain in one of her shoulders; in the morning she called the family physician, a man of knowledge and experience. He injected morphine into the arm, and relieved her in a few minutes; in the evening he called again, and found his patient well, but thought to secure a good night's rest, it would be well to inject a little more morphine, which he did, and in thirty minutes his patient was a corpse. The feelings of the doctor can be better imagined than expressed.

I have other cases that I could mention, but these are enough to satisfy me that the Hypodermic Syringe should never be used where there is any possible way of giving the medicine in any other way.

E. WENGER, M. D.

Gilman, Ill., June 1st, 1877.

Since writing the above I have inquired of a few of my medical friends and find that several of them have had unpleasant experiences with the use of morphia by hypodermic injections. Two of my friends have had cases almost identical with my own, and doubtless many others have come under the observation of those who have made extensive use of this method of treatment.

I am satisfied that no precaution can be taken which will insure us against accidents from this mode of treatment.

E. F. I.

FOUR SUCCESSIVE RUPTURES OF THE UTERUS  
IN THE SAME PATIENT WITH FAVORABLE  
TERMINATION.

BY DR. J. M. ROSE, of West Winfield, N. Y.

Mrs. P. Da—, native of Ireland, age 32 years; has resided in this country about twenty years. She is the mother of two children, the oldest four and the youngest two years of age. Mrs. D. was taken with labor pains, June 1st, 1869. The pains were regular, the head presented, the os dilated well, and everything promised a favorable termination of the case within a few hours.

After she had been in labor about five hours, she had quite a severe pain, and complained more than usual. This pain was followed by fainting, with general prostration, and in a short time with great tenderness over the whole abdomen. Upon introducing my hand into the vagina, I could feel nothing of the child. Suspecting a rupture of the uterus, and thinking that the patient would die, I sent for my friend, Dr. E. King. After consultation we concluded to get the fetus away if possible. I gave the patient a dose of opium and some milk punch. I then proceeded to deliver her. I passed my hand through the os, and finding a rupture passed my hand through the opening into the cavity of the abdomen. I succeeded in finding the feet, brought them down and delivered a dead child in about twenty minutes, together with the after-birth, which was also in the cavity of the abdomen. She bore the operation quite well. I ordered her to take an eighth of a grain of morphine in connection with two grains of quinine every four hours, unless she rested, with beef tea and milk punch for food. I also gave half a drop of fluid extract of *veratrum viride* every four hours.

June 2d. I found the patient better than I expected; pulse, 80; temperature, nearly normal. Continued treatment.



June 3d. Pulse, 80; more irritable, bowels very tender to the touch. Continued treatment.

June 4th. In the morning, pulse, 90; in the evening, 120. Bowels, tympanitic; vomiting, can retain but very little nourishment. She sleeps but little; pain not very severe unless she is moved, or pressure is made on her bowels. Stopped *veratrum viride*.

June 5th. Pulse, 120, morning and evening; vomiting; tongue red; gave syrup of chloroform, which stopped the vomiting.

June 6th. Pulse, 110, morning and evening; bowels less tender, and have moved once. Continue morphine and quinine.

June 7th. Pulse, 100 in the morning, 110 in the evening; rested quite well. Skin moist the most of the time.

June 8th. Pulse, 100. Calls for food; wants meat and potatoes. She has lived principally upon milk punch and beef tea up to this time.

June 9th. Pulse, 100; tongue red, symptoms favorable. Treatment continued.

June 10th. Pulse, 95; bowels moved four times. There is considerable pain. Increased the amount of morphine.

June 11th. Pulse, 95; bowels quiet; is better.

June 13th. Pulse, 90; bowels quick, no tympanitis; tongue appears better.

June 15th. Continues to improve; can turn in bed without help.

June 17th. Still improving; pulse, 90; tongue moist and not so red. Continue quinine, with the addition of morphine at evening.

June 20th. Improving; patient wanted to get up. I told her to wait.

June 24th. Pulse, 85; skin natural; sat up a short time.

June 30th. Pulse, 80; tongue looks quite natural; bowels tender to pressure; can move about by being very careful. Continue tonics, iron and bark, with careful diet. In a short time she was at work.

I was again sent for to attend Mrs. D—, in confinement,

April 1st, 1872. I found her in good spirits, thinking that she was going to get along all right. The pains went along as usual for three or four hours when they suddenly stopped, and were followed by great prostration and tenderness of the bowels. Suspecting that the uterus had again ruptured, I made an examination and found that the head had receded, and passing my hand into the uterus I found that my suspicion was correct. I proceeded to deliver as before, by passing my hand through the rent in the womb and bringing down the feet. I delivered her in a few minutes. She bore the operation very well.

April 2d. I found the patient quite comfortable; gave anodynes with supporting treatment.

April 3d. Bowels very tender; pulse 100; temperature 99; gave aconite in addition.

April 4th. Pulse 100; temperature 100; bowels tympanitic.

April 6th. Pulse 110; temperature 101; vomiting; bowels quite tender, with purulent discharges from the womb.

April 9th. Pulse 110; temperature 100. Is taking light food—beef tea and milk punch.

April 15th. Pulse 100; temperature 98; appetite good; symptoms quite favorable; was lying in bed and taking care of her two children sick with scarlet fever. She improved gradually, and in about a month was doing light work. In connection with the use of the anodynes and tonics, I applied turpentine to the bowels.

It may be proper to state that the long intervals between my visits, were due to the state of the roads, which were in such a condition as to render it impossible for me to visit her as often as I thought she needed.

On May 18th, 1874, Mrs. D——— was again taken with labor pains, which lasted about two hours and stopped suddenly, followed by feelings of faintness, with tenderness over the abdomen. A physician had been sent for, who told her that the pains had stopped, and that perhaps they would not come on in a week or more. On the strength of his assertion, they

waited until the morning of the 20th, when they sent for me. Upon making an examination, I found the os partially dilated, so that I could introduce my hand and pass it into the womb, when I discovered that it was again ruptured. I told her husband that there was great danger of her not recovering, when he said that I must wait before doing anything until the arrival of the priest, as they had sent for him and he would be there in a few hours. I left, telling him that I would be back at 1 o'clock p. m., and advised him to send for Dr. King to meet me at that time. The doctor came, and confirmed my diagnosis, and after the priest had got through with the patient, we proceeded to deliver her. She had become so tender that it was necessary to give chloroform. Dr. King gave chloroform. As soon as she became quiet, I introduced my hand and brought away the placenta, which lay in the abdominal cavity near the opening. I then passed my hand again; the head was in the lower portion of the bowels. I carried my hand up and got hold of the feet, and delivered her in a few moments.

The child had been dead so long that the skin would slip off upon handling.

After delivering the child, I introduced my hand again. I could pass it up to the upper portion of the abdominal cavity, and move it about without encountering any adhesions or obstacles of any kind. The rent in the womb was transverse and in its posterior portion; it felt as though half of the womb had been cut off with a knife. The womb had contracted to about the size of the two fists. None of the contents of the abdomen passed through the rent. She bore the operation very well.

May 21. Patient apparently doing well; takes beef tea, milk punch and opium.

May 22. Pulse 110; bowels tympanitic; fever, with darting pains; great tenderness. Rested some last night.

May 23. Pulse 120; temperature 100. She had been vomiting, and had had three movements from the bowels, which caused her to be in great pain. Continued opium and quinine, with gelseminum every four hours.

May 24. Pulse 120; temperature 102. Had a diarrhoea;

bowels moved quite often. Added subnitrate of bismuth to powders.

May 25th. Diarrhœa continued. She had twenty or thirty movements. Temperature, 100; pulse 120,

May 27th. Pulse, 107; temperature, normal. Some appetite; bowels moved four times. Continue bismuth and opium treatment.

May 29th. Pulse, 94; bowels moved twice. Continued treatment.

June 1st. Pulse, 90; bowels regular. Sat up an hour yesterday. All favorable.

Since writing the above, Mrs. D—— has been delivered of a living child, after another rupture of the womb.

She was taken sick about one o'clock in the morning of February 28th, 1876. I saw her at a quarter past twelve the same day. She had been having regular pains for about two hours. About twenty minutes before I saw her, she had a pain, and the waters broke; she said she felt a great movement of the child,—she felt it pressing up under her ribs. I made an examination, and could just reach one foot with the finger. Introduced my hand and brought down the feet, and delivered a living child as soon as possible. The delivery was accomplished in about ten minutes, before the placenta was detached from the womb. There was strong pulsation in the cord after the delivery of the child.

29th. Mrs. D—— is quite comfortable. Pulse, 85; not much fever. She is suffering no more than is usual after an ordinary delivery.

30th. Doing well. Pulse, about 80; temperature natural. No great tenderness of bowels. A little bloody discharge from the vagina.

March 5th. Mrs. D—— is doing finely.

## HYDRASTIS CANADENSIS IN UTERINE HÆMOR- RHAGE, AND MENORRHAGIA; AND ALSO IN DYSMENORRHEA.

BY W. A. GORDON, M. D., HANNIBAL, MO.

I have not seen *Hydrastis Canadensis* prominently spoken of in the leading text-books, as a reliable agent in hæmorrhage, from any of the mucous surfaces or in any respect worthy of especial notice further than as a good bitter tonic; and recommended in a general way as possessing merit in chronic diseases of the mucous membranes.

During the past ten years, I have made quite extensive use of hydrastis prepared in the form of tincture from the fresh root, with such positive and satisfactory results in uterine hæmorrhage, that I now seldom resort to any other remedy.

The tincture I use is prepared after the following formula:

R.	Rad. hydras. can. (fresh)	-	ozii.
	Aq. dest.	-	oj.

Maintain at a temperature of 120° F., for 24 hours; then add spts. rec. Oj—remove from the bath—and in three days it is ready for use. In those urgent cases where I formerly resorted to half-drachm and drachm doses of the fluid extract of ergot every twenty or thirty minutes, I now use the tincture of hydrastis in doses of from twenty to thirty drops, repeated the same as ergot, until the active hæmorrhage is controlled. The remedy is then continued in small doses—say two to five drops—every two to four hours, according to the urgency of the symptoms. In cases of marked prostration from loss of blood, I combine with the hydrastis, the tincture cinchonæ flavæ, in small doses, say from five to eight drops, which combination seems to produce a quiet and gradual contractility of both muscular fibres and capillary vessels of the

womb; and effects a more natural and comfortable reaction from the extreme prostration attending this class of cases, together with an entire absence of cerebral and gastric disturbances which are so frequently concomitant symptoms following the administration of large doses of ergot.

In *Menorrhagia*, I have found it to give decided and prompt relief. In this class of cases, I am in the habit of giving from two to five drops of the above tincture of hydrastis in a teaspoonful of water every two or three hours, or oftener, and in larger doses if the urgency of the symptoms demands it. After the flow is brought to its normal quality, the minimum dose is continued twice a day until the next period of menstruation, when if the excessive discharge recurs—resort again to longer and more frequent doses, until it is brought under control.

In *Dysmenorrhœa* caused by chronic endo-metritis, the tincture of hydrastis with bromine has given me very satisfactory results.

In the use of bromine as an internal therapeutical agent, I have observed that persons of a nervous temperament are highly susceptible to its influence. I would here incidentally remark, that during our late war, I had occasion to use it quite extensively in the military hospitals of the Department of Kentucky, under the direction of Dr. M. Goldsmith, late surgeon U. S. V., and my observations there were such that in the majority of cases treated with bromine—which were hospital gangrene and erysipelas—the doses recommended and administered internally were not attended with as good results as much smaller doses, frequently repeated. See U. S. Dispensatory for preparation and dose.

In some cases, classified under the head *neuroses*, and especially those arising from diseased conditions of the procreative system, I have known one-twentieth the dose directed by the U. S. Dispensatory produce violent headache, ranging from the frontal sinus along the track of the longitudinal sinus down to the base of the brain, with a marked increase of pulse in volume and frequency. In one instance the pulse was increased fifteen

beats per minute, which lasted about two hours before it began to decrease, and did not resume its normal beat until the expiration of seven hours, from the time the dose was administered. This case was a nervous female afflicted with endometritis.

In these nervous susceptible cases, I have met with some that could not tolerate over ten drops of the following solution, four times a day without stimulation and headache:

R. Bromini, gt. j.  
Aq. dest. oj. M.

If a much larger dose than the above is continued for several weeks it will almost positively produce *membranous dysmenorrhœa*.

The formula I am now using in several cases of endo-metritis is to take equal parts of the above aqueous solution of bromine and tincture hydrastis, and give fifteen to twenty drops of the mixture three times a day, and if restless at night give a dose at bed-time.

My reasons for being somewhat explicit on the internal administration of bromine is from the fact, that its potency has so limited its use, that comparatively few members of the profession have ever given it a fair trial.

But if given in small doses, such as suggested above, or even smaller, I am satisfied that it is a remedy of more than ordinary merit as an alterative and stimulant to the procreative system, and at no distant day will be found to possess great value as a remedy for increasing cell action in the nerve centres controlling the sexual system of man.

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THE PATHOLOGICAL TRANSACTIONS OF THE  
CHICAGO MEDICAL SOCIETY.

Edited by DR. I. N. DANFORTH.

## I.

## INTRA-OCULAR TUMORS.

(WITH NINE SPECIMENS.)

BY PROF. E. L. HOLMES.

The moment the presence of a tumor within the globe is recognized, there is almost absolute certainty that vision in that eye will be more or less speedily, but in the end totally destroyed; and in the majority of cases, death will be the ultimate result. These tumors, therefore, are nearly all malignant,—such is the nature of the nine specimens which I present for your inspection this evening.

To dismiss with as few words as possible the subject of non-malignant intra-ocular growths, I will simply state that they are chiefly: First: Cysts of the iris. This formation generally develops as a remarkably transparent sac after a wound of the iris, which, if neglected, is sure to destroy vision. The early removal of the portion of the iris to which it is attached, may leave vision intact. But three such cysts have fallen under my observation. Second: Cysticerci, which are scarcely ever found in this country. Third. A peculiar cystic degeneration of the hyaloid artery in the vitreous humor, only one example of which I have ever seen. Fourth: A development of pigment cells around the edge of the pupil resembling the "corpora nigra" so often present in horses. A remarkable example of this anomaly I described in the Transactions of the Illinois State Medical Society for 1873. All these tumors disturb vision more or less under the most favorable circumstances.

The malignant tumors are almost wholly confined to two classes—sarcoma of the choroid, ciliary processes and iris, peculiar to adults, and glioma of the retina, only found, with rare exceptions, in infants or very young children. A very few other forms of tumor with unusual cell structure have been reported in ophthalmic literature.

The sarcomatous tumors before you, with one exception, scarcely fill half of the globe.

FIG. 3.



CHOROIDAL TUMOR (SARCOMA). TO ILLUSTRATE DR. HOLMES' ARTICLE.

The eyeball is shrivelled and rendered elliptical by being mounted upon a glass slip suspended in alcohol; but the position and relations of the tumor are well shown.

They vary much in color, from a light brown to jet black. They are characterized by a mixture of small round or elongated and large fusiform or stellate cells, "distinguished in general by large and sharply defined nuclei and bright well marked nucleoli.

FIG. 4.



Showing the histological elements of the sarcomatous tumor represented in Fig. 3. Glycerine preparation. From a camera drawing by Dr. R. U. Piper. (Hartnack No. 5).

The course of development of these growths may be conveniently divided into three periods: 1st. When there is no pain, nor inflammation, when sight in a portion of the field of vision may still be quite good and when the tumor, in uncomplicated cases, may be seen with the aid of the ophthalmoscope. 2d. When inflammatory action has caused closure of the pupil and cataract, and pain, which sometimes causes the patient to seek medical aid. Increased tension (hardness) of the globe in this stage is usually a most important symptom. The diagnosis is sometimes difficult in aged patients, who cannot give the past history of their case, when the symptoms may be those of a neglected glaucoma. 3d. When the tumor has invaded the neighboring tissues.

With the general history of the case, I think the presence of large tortuous vessels in a circumscribed portion of the ocular conjunctiva, is an important symptom, in doubtful cases.

The malignancy of these tumors is scarcely apparent to the general practitioner, when the specialist has extirpated the globe in their early stage of development, for they seldom reappear in the orbit. Death is none the less certain, I believe, although it may take place at a period seldom more than four years subsequent to the extirpation of the globe, from malignant disease of some internal organ, especially the liver. The family physician too often fails to associate the death of his patient with the eye removed some years before.

When the tumor has been permitted to break through the sclerotic and cornea and invade the adjoining tissues, the malignancy becomes apparent. Death may occur from direct injury to the brain, or from excessive discharges, or the absorption of poisonous fluids into the blood.

If we turn to gliomatous tumors we find a growth which, with or without treatment, almost universally and quite speedily forces upon the mind of the general practitioner the idea of malignancy—for whether it is removed or permitted to remain, it rapidly becomes a fungus hæmatodes, destroying life by direct injury of the brain or by exhaustion produced by great discharge or by contamination of the blood.

In nearly all instances the disease appears in the eyes of in-

fants or very young children, who cannot call attention to their failing sight; consequently, the ophthalmologist seldom has an opportunity of examining the tumor in its very earliest stage. When the retina has become involved to a considerable extent, there is clearly seen deep in the eye a peculiar glimmer, which may be compared to polished German silver partially tarnished. This change is usually first observed by the mother of the patient. The diagnosis in the first stage is remarkably simple, although in very rare cases a peculiar form of choroiditis may be mistaken for retinal tumor. It is especially worthy of attention that detached retina, or choroiditis, or in fact any form of disease which might possibly be regarded as glioma, almost never appears in infants. Occasionally glioma is observed in both eyes.

The cells of this growth are characterized by their great similarity to the true granular cells of the normal retina, being round, nucleated, with nucleoli. The term glioma was originally applied to these tumors as developing from the connective tissue (glia, glue), of the retina. As they now seem to be a proliferation of the true retinal granules, the term is a misnomer.

The only treatment of this form of tumor is as early as possible to extirpate the globe. The only object of this operation is to prevent or relieve pain, for it can scarcely be said to save life.

The subject of intraocular tumors has been extensively discussed in especial works and journals of ophthalmology. The best and most available special work for the American reader is perhaps that of Dr. Knapp, of New York.

Reported March 12, 1877.

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## II.

### ENCEPHALOID CANCER IN A CHILD TWO YEARS AND SEVEN MONTHS OLD.

By PROF. T. DAVIS FITCH.

February 18th, 1877, I was called to see Theodore L. B., aged two years and seven months. He was a robust child, large of his age—dark complexion, and had always enjoyed

extraordinary good health from his birth, with the exception of slight bowel derangement during dentition, and a green-stick fracture of the left ulna in July, 1876. The child was delivered under my care, and had always been treated by me in these slight derangements, so that I had been familiar with him from his birth, and know that he was an unusually robust child.

On examination at the date above mentioned, I found the child irritable in temper, fretful, temperature slightly elevated, pulse 120, bowels constipated, urine normal. His face was pallid and his eyes sunken and glassy, with a dark ring under them; his countenance resembling that of a child in collapse, from cholera-infantum.

February 19.—Found the child in much the same condition as on the previous visit. The mother called my attention to the fact that the child had been a little lame in the right leg, and this was verified by allowing him to walk across the room. I then pressed the head of the femur with some force into the acetabulum accompanied with rotation, and it seemed to give him pain, though there was apparently no inversion or eversion of the foot; it led me to suspect morbus coxarius. Bowels had moved and some slight relief seemed to be afforded.

February 22d.—The condition very little changed. Noticed an unusual prominence of the right cheek, which seemed to be hard and insensible. No pain manifested on pressure, no abnormal heat or redness. Was informed that the child fell against the corner of a chest about two weeks previous to this attack, but no mark of the bruise had resulted; no pain complained of. The child had unusually high cheek bones, and this was thought due to irregularity of the features.

February 25th.—The child seemed worse, and the swelling of the cheek had increased. I then examined the mouth and found a swelling in the gum opposite the eye tooth, which I then thought was an abscess, from its doughy feel or semi-fluctuating character. On puncturing, it discharged only blood. I was then led to fear malignant disease, and expressed my convictions of this fact to the parents. *No history of cancer in the family.*

February 26th.—Called and found the child in much the same condition but evidently failing; advised counsel.

February 27th.—Dr. R. G. Bogue was called, the diagnosis was confirmed, and an unfavorable prognosis given.

The buccal tumor continued to grow until about March 12th, when it protruded an inch beyond the lips, and in a few days sloughed off. The cheek became more prominent, glassy, and the skin so thin and transparent that the enlarged subcutaneous vessels could be very distinctly seen. About this time Prof. Danforth was called in, who at once recognized the disease and corroborated the diagnosis and prognosis. The child became quite prominent in the epigastric region, and on palpation a hard tumor was detected reaching nearly to the ensiform cartilage; this swelling increased rapidly till his death on the 27th March.

Autopsy 24 hours after death. Present Profs. Danforth, Chas. W. Earle and Sarah Hackett Stevenson. The child was greatly emaciated. The main object of the post mortem was to ascertain the origin and character of the tumor in the abdominal cavity. No examination was made of the facial tumor. The lungs, pleura liver, heart, stomach and intestines were found in a healthy condition.

The tumor was found to be a cancerous degeneration of the left kidney; not even a trace of the normal kidney remaining. The tumor was composed of cysts of various sizes and containing fluid of various kinds; large clots of blood were found in some of them. A tumor of similar character was found in the right groin about the iliac vessels, immediately above Poupart's ligament. This tumor was somewhat larger than a hen's egg, and was undoubtedly the cause of the lameness complained of in the first week of the sickness.

The larger tumor was about the size of a man's two fists, and would weigh about two pounds.

These specimens were placed in the hands of Dr. Danforth for examination and presentation. He will give you the *microscopy*.

*Note.*—The histological elements found in the specimens placed in my hands by Prof. Fitch were such as clearly indicated encephaloid cancer of the most virulent or rapidly growing form. Large atypical cells were abundant, but the connective tissue element or

"stroma" was almost wholly wanting. The cells presented no great variety as to form, because the density of the cancerous mass being much the same in all its parts, they encountered the same resistance to growth on all sides; hence it was possible for each cell to develop symmetrically. In scirrhous and the denser and more slowly growing forms of encephaloid, the developing cells encounter fibres of connective tissue between which they must push their wedge shaped processes; therefore, we find the "caudate" or "polygonal" cells, which were so long regarded as indicative of cancer. But the cells in the case under consideration presented a very marked variety as regards size and other features. The number of nuclei varied from one to four; and some of them, might well have been taken for the "giant cells" of Virchow. I found the usual luxuriant small cell infiltration, derived from the leucocytes and their descendants; also the debris of degenerating structures which were invaded by the cancerous growth, and numerous fat globules. It seems to me that Prof. Fitch's case is one of profound interest pathologically. A child only two years old, of fine *phísique*, enjoying "extraordinary good health," reared under favorable circumstances as regards care, cleanliness, diet, air and all other conditions which conduce to infantile health; entirely innocent of any hereditary tendency to cancerous disease, so far as could be ascertained, and quite too young to have acquired any such disease by means of personal vices, is suddenly attacked by cancer in its most virulent and ferocious form. Moreover, it is a case so clearly typical, that no question can be raised as to its nature; every one of us who saw the child either ante- or post-mortem, at once pronounced the disease cancer, and the microscope added its confirmatory evidence. The question of all-absorbing interest to the pathologist is, whence and how came this invasion of cancer in a manner apparently so causeless and inexplicable? Such cases teach us that pathology is yet in its infancy.

I. N. D.

Reported July 30th, 1877.

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### III.

#### INTRA-MURAL FIBROID TUMOR.

By DR. MARY H. THOMPSON.

Mrs. M. E. H., aged 32; American. She was a widow with one child, a boy about eight years of age; entered the hospital Jan. 5, 1876.

Said she had been sick since July, '75, with catarrh of the womb, and had been treated for the same. In December of the same year, while menstruating, was taken very sick; thought she "took cold."

She is rather pale, with tongue red and glazed; slight fever; great pain in the abdomen and lower part of back; has slight metrorrhœa. The abdomen slightly dull on percussion at the level of umbilicus, increasing in dullness to pubis.

Examination per vaginam reveals a disk of inflamed cellular tissue, extending across the pelvis at the junction of the vaginal and supra-vaginal portion of the cervix uteri, and holding that organ and roof of vagina quite immovable, obscuring to the touch the outlines of the corpus uteri.



The appetite is variable; rarely any headache; habitual constipation; very little difficulty in micturition at any time.

Feb. 13. Cellulitis rapidly disappearing; some pus evacuated from the rectum.

Feb. 14. Prof. Byford is called in consultation. The cellular tissue is found sufficiently softened to enable us to map out the outlines of the corpus uteri, which is enlarged to the size of a large orange, and of a globular shape, and thought to contain an intra-mural fibroid tumor, occupying the anterior wall of the body.

The patient continued improving for about three months, taking from 20 to 30 drops of Squibb's fluid extract of ergot a day, but with little or no effect on the tumor. She was then dismissed to obtain a change of air. While out she visited my office occasionally, that I might watch her condition, and that she might be readmitted when necessary. But as the hospital was crowded, I was obliged to refuse her admittance. Yet while traveling about, her metrorrhagia returned more than previously.

Dec. 19. She came into the hospital again. Said that during her absence she had been in another hospital, and that a sponge tent had been used, which was thought to have cured her, but at this time she was thin and bloodless.

The tumor was apparently increasing. From this time, whenever an examination was made per vaginam, a slight hæmorrhage was caused, especially if the finger was introduced, however carefully, into the uterus. The lining of the cervix felt slightly rough as far as could be reached, which was  $\frac{3}{4}$  of an inch in extent from the os. Menstruation would come on like a sudden hæmorrhage, frequently ceasing in a day, and as suddenly as it began. On several occasions she became pulseless, and was not expected to survive. At these times Gallic acid was the only drug which seemed to have any effect upon the hæmorrhage.

Jan. 8. The pain was gradually increasing, and could be controlled only by opiates.

Jan. 27. Diarrhœa came on, succeeding constipation; these

conditions ever afterwards alternating. Dysenteric pains accompanying the former, and a "continued grinding pain" the latter.

May 8. Is in great pain, unless under the influence of morphine.

May 14. Is but a skeleton; feet swelling; tongue red, dry, and glazed; taste unnatural; complete anorexia; is in great pain; urine thick and scant; much exhausted and failing.

May 17. Dimness of sight in left eye, which continues about three days; is the only paralysis of the nerves of sensation which occurred.

June 1. Death occurred at 11 P. M.

Post-mortem examination fourteen hours after death.

Body much emaciated. Adipose tissue nearly all absent, muscles shrivelled. Small tumors of lymphatic glands (?) about the size and shape of an apple-seed were found on the abdomen, beneath the subcutaneous tissue, which would roll under the finger from side to side. The lymphatics in the vaginal region were greatly enlarged.

The foot, left leg and thigh were greatly œdematous. The abdomen was greatly distended and tympanitic.

The abdomen and pelvis only were examined. When the first incision was made through the abdominal wall, the intestines formed large hernial protrusions on account of their distension with gas and half liquid feces, and their walls were so fragile as to rupture while lying exposed to the atmosphere.

The womb was not found so large by several times its size as was expected; it was externally of nearly its normal shape; but in its width, which was about four inches, including, on one side, an apparent fallopian tube, twisted about so that its os abdominalis was adherent, and incorporated with the uterine body; on the opposite side are apparent enlarged ovaries, which had been adherent to and formed a part of the mass which included the womb.

It appeared like a fibroid, degenerated into a friable mass of a dark brown or brownish red color, yet containing nodules of hard white fibroid material, intermixed with the dark mass.

The pelvic connective tissue was changed into the same material, only the fibroid nodules in this substance were not as large as in the body of the uterus.

Upon lifting up the body of the womb to dissect it out of the pelvis, it was found to be so friable as to come off in the hand, leaving the vaginal portion of the cervix in the pelvis.

The cellular tissue was so soft in all parts as to let the fingers into it with the least possible force; but throughout its substance run thread-like bands of fibrous tissue, which had united the womb to the bladder, and woven its way to the pelvic walls. Around the rectum, it was found much more abundantly: it bound that canal to the sacrum so closely that only a finger could be introduced into its caliber from above the level of Douglas' cul-de-sac downward.

The bladder was found to contain a few ounces of *healthy looking* urine. The left kidney, with the upper portion of its ureter, contained two ounces of urine; the right one about an ounce. The intestines were greatly distended with gas, and half liquid feces, from the stomach downward. These walls were thin and tender, though having the appearance of being perfectly natural. The stomach was empty, and so contracted as to appear but a slight dilatation of the alimentary canal; though, like the intestines, its walls appeared natural.

When closing the incisions of the abdominal wall, it was found to be so soft as scarcely to be held between the thumb and finger, without pieces tearing away; and the force required to thrust a common suture needle through it was no more than it would require to pierce the thinnest muslin, from the pubes to umbilicus; yet to the naked eye its appearance was perfectly natural.

The diaphragm was pushed up to the fourth rib on the right side, and on the left to the fifth intercostal space. The gall bladder was greatly distended with its natural contents. The spleen much atrophied.

The tumor was submitted to Dr. Danforth for microscopic examination.

NOTE.—Upon examining the mass left with me by Dr. Thompson, I could not make out that any distinct and isolated tumor ever existed. The mass seems to include the uterus, and its appendages; the whole united and consolidated by inflammatory pro-

liferation of connective tissue. Microscopic examination of thin sections taken from different portions of the specimen, show essentially the same structure, namely, small spindle cells woven together in circular or elliptical groups, small round cells enclosed in the cavities formed by the spindle cells, or lying in the spaces between them, and numerous tortuous thickened blood vessels. As to the origin of the morbid growth, it seems to me impossible to decide. It may have commenced, as an intra-mural fibroid which became inflamed, and from which the inflammatory process extended to the general pelvic connective tissue, producing excessive hypertrophy and induration of that tissue, or it may have been wholly due to general inflammatory proliferation of the connective tissue cells. I am inclined to adopt the latter view, because it most satisfactorily explains and accounts for the conditions which existed.

I. N. D.

Reported July 16, 1877.

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#### IV.

#### CASE OF AMYLOID DEGENERATION OF LIVER AND KIDNEYS, WITH CARIES OF LUMBER VERTEBRÆ.

By Dr. W. T. BELFIELD, Ass't Physician, Cook County Hospital.

Mary L., aged 3 years, was admitted to the hospital, May 1, 1875. For some reason which can be only conjectured, neither her previous nor her subsequent history was recorded; hence our only information in regard to her, is gleaned from the traditions handed down to the present internes, and from the personal knowledge of the nurse. Unsatisfactory as such a history necessarily is, the rarity of the case is, perhaps, sufficient apology for its presentation.

The child had been always delicate; had never walked, the inability being due, apparently, not to malformation, but to a lack of strength. On admission she was quite emaciated; skin cool, very white and transparent; appetite excellent, usually had several clay-colored stools daily; from a small opening below Poupart's ligament on the right side there was a slight but constant purulent discharge; there was evidently considerable liquid in the peritoneal sac. She was so weak as to be unable even to feed herself; her mental faculties were quite acute, and she took the usual delight in the ownership of dolls and other toys.

During the first year, her history was simply a gradual aggravation of the ascites, and of the diarrhœa; her stools finally averaging from 12 to 20 daily, but retaining their peculiar clay color and semi-solid consistence. Some enlarge-

ment of the liver became evident. During all this time, notwithstanding the unavoidable lack of exercise, society and amusement, her general condition did not decline; her appetite became voracious; and except during periodical exacerbations of the diarrhoea, she complained of no pain. She was serene, contented, almost happy. The late Prof. Freer, upon taking charge of the ward in which she lay, pronounced the case one of amyloid degeneration of the liver.

About a year ago a small tumor appeared and burst in the gluteal region of the right side. From this opening there was a constant purulent discharge. About six months ago, the abdomen being then greatly distended, there became apparent œdema of the feet, gradually extending upward to the knees. From this time the little patient declined visibly in health, and finally, without the development of additional symptoms, died May 2, 1877.

A *post-mortem* examination revealed the presence of about five quarts of clear, yellowish liquid in the peritoneal sac; a fibrillated exudate on the superior surface of the liver, and among the folds of intestine. The liver was much enlarged, weighing 57 ounces; was very smooth, dense and elastic; the edges were rounded; the cut surface was of waxy appearance, dry and almost bloodless; the lobules were plainly mapped out by white boundary-lines; a thin section was quite translucent; the addition of iodine in solution produced a mahogany-red color.

The kidneys, also, were enlarged, smooth and dense, weighing 3 ounces each. Section showed the enlargement to be due chiefly to thickening of the cortical portion, which also presented an unusual pallor. Treatment with iodine caused the malpighian bodies and vasa recta to assume the same mahogany-red color.

There was also extensive caries of the lumbar vertebra, from which a sinus extended to the opening on the hip.

Microscopic examination was made under the supervision of Dr. Danforth, pathologist to the hospital. Sections were cut by hand, soaked for a few minutes in glycerine and acetic acid, and then stained with a solution of iodine in iodide of

potassium and water. In the liver, the calibre of the interlobular vessels appeared somewhat diminished; the liver-cells were swollen, of rounded, regular outline, and devoid of nuclei; in many cases there seemed to have been obliteration of the intercellular substance and coalescence of cells; the entire lobule, excepting only the scanty connective tissue, presented the mahogany-red color. There was no evidence of fatty degeneration.

In the kidney, the vascular coils of many malpighian bodies, the corresponding vasa afferentia, and some of the vasa recta, exhibited the iodine staining. Some of the malpighian bodies and many vasa recta showed no change of color.

This case is in accord with the published statements of authorities. Thus Niemeyer says: "Lardaceous liver never occurs in persons otherwise healthy; it is more apt to occur in advanced cachexia, particularly in cases resulting from scrofulous or syphilitic affections, from tedious suppurations, and caries of bone."

Rindfleisch inverts the order of probable causes, stating that it is found "most frequently after long-continued suppuration in the osseous system, caries of the vertebræ, necrosis, etc.; furthermore, it is not a rare attendant upon constitutional syphilis." Green gives still more prominence to the predisposing influence of suppuration, stating that the disease most frequently occurs in conjunction with "profuse and long-continued suppuration, such as chronic diseases of bone, empyema," etc. "It also frequently occurs in the advanced stages of constitutional syphilis, but usually only in those cases in which there is chronic bone disease or chronic ulceration."

Judging from our scanty history, and from the microscopical appearances, it appears probable that the patient in question was of scrofulous diathesis; that the first lesion was caries of the vertebræ; that this was soon followed by amyloid infiltration of the liver, and finally, probably within eight months of the date of her death, by a similar degeneration of the kidneys.

Reported May 28, 1877.

## V.

## A CASE OF ENTERO-PERITONITIS WITH SUPPURATION.

BY DR. HENRY VAN BUREN, CHICAGO.

Willie S. Aged 4 years.

On the 21st of February last this little patient was attacked with vomiting—pulse, 120 per minute, and strong febrile symptoms.

On the 23d his pulse was 140, and the vomiting and fever continued.

The abdomen now became swollen, and the tongue coated and reddened at the edges and tip, and for one week all the symptoms of an ordinary case of enteritis were present.

On the 2d of March, the tympanitic character of the bowels had nearly disappeared, the other symptoms abated, and the patient was supposed to be convalescent.

On the 4th of March, I discovered the bowels swelling again; they were hard and tense, and pressure caused great pain. The pulse was 140, and all of the earlier symptoms were renewed. These continued and increased from the 4th to the 11th of March.

The abdomen was now distended to 36 in. in circumference, the normal size being about 18 inches, crowding the contents of the abdominal cavity against the diaphragm, and obstructing the respiration and the heart's action.

The veins over the abdomen became engorged, and could be readily traced over the whole surface.

The feces were now dark and at times muco-sanguinolent, or purulent in character.

The patient on the 9th and 10th of March became greatly prostrated, partially comatose, and the vomiting continued troublesome.

The treatment thus far had been mostly opiates, with small doses of hydrarg. cum creta, and the diet beef tea with brandy.

Poultices were kept constantly over the bowels.

An effort was made to lessen the enormous distension of the bowels, by introducing a long flexible tube into the rectum and



applying an air-pump. Some of the accumulated gases were thus removed.

On the evening of the 10th, the case of my little patient had become a desperate one. And, on a further examination of the abdomen, I discovered what I thought to be a cavity of pus, with the centre about one inch below the umbilicus, and its diameter probably not more than about 3 or 4 inches.

Dr. Norman Bridge had been in consultation with me during the progress of this case, and it was determined on the morning of the 11th of March to make an opening into the peritoneal cavity and intestines. Owing to uniform tympanitic resonance, the consulting physician did not believe that we would find pus, but that a puncture with an aspirating needle would be highly proper, to relieve the enormous distension of the bowels by the escape of gases. It has already been intimated that I believed there was pus, and as Dr. Bridge concurred in the opinion that an opening should be made, with his assistance I performed the operation.

The instrument used was a small trocar and canula, and the point of entrance made at about one inch below the umbilicus; the instrument was thrust into the abdomen a distance of about three inches. The trocar was withdrawn, and 20 ounces of fluid escaped through the canula (which, under the microscope and by chemical test, proved to be pus with only slight traces of fecal matter).

On the afternoon of the same day, we made two additional openings with the needle of the aspirator, one on each side, a distance of about five inches from the umbilicus. This instrument was thrust into the intestines, and the pump applied, and through the aspirator we got a dark colored fecal discharge, but no pus.

On the following morning, March 12th, the opening first made with the trocar was slightly enlarged with a bistoury, and through this opening eighteen ounces of pus, additional to what had escaped—now discharged—some of which was lost by spurting out on the floor by the side of the puncture.

Incredible as it may appear, as shown above, no less than

38 ounces of pus, dense in quality, escaped through the opening made in the regio umbilicalis, within 36 hours after the operation.

The poultices were continued for one week, after which the abdomen was covered with cotton-batting. The opening remained for about three weeks, during which time, weak solutions of carbolic acid were injected into the opening.

The patient was given citrate of iron and quinine, brandy and lager beer, and took the extract of six pounds of beef every twenty-four hours.

We had in this case, I think, general enteritis, and circumscribed inflammation of the peritoneum, and the pus was found mostly in a well or pocket in the peritoneal cavity, in the region of the umbilicus.

I have this to say, respecting this little patient. His case is the most remarkable one of its character which I have seen on record, and it is wonderful that he has entirely recovered, and is to-day a healthy vigorous child.

Reported, July 16th, 1877.

TO THE MEMBERS OF THE CHICAGO MEDICAL SOCIETY:—With the present issue, the first year of the publication of the Pathological Transactions of our Society, is completed. The net results of the undertaking up to this time, are the permanent record of twenty-one articles, some of which are novel, and all of which are of value to ourselves and the profession at large, and the creation of increased interest concerning pathology, on the part of our membership. But the Editor desires, in future, to interest a far larger proportion of the members of our Society, in the work of sustaining the publication of our "Transactions." Only fourteen of the members have contributed to the Transactions during the past year. A number quite too small, when compared with the roll of membership. Not one-half of the really valuable material presented to the Society during the past year, has been utilized for the benefit of science. For the future success of our enterprise, there should be, on the part of the members of the Society: 1st. A more careful and systematic observation of the course, progress, and results of interesting and unique cases. 2d. More general interest upon the subject of the pathological anatomy of fatal cases. 3d. The cultivation of the habit of reporting cases—especially those which terminate fatally—in writing, to the Society, so that such reports may be available for publication. The Editor of the Transactions respectfully urges that the foregoing hints be practically adopted by the members of the Society.

I. N. D.

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CORRECTION.—Owing to a mistake in the manuscript the formula for preparing the tincture of Hydrastis Canad. (p. 142) is not quite correct, it should read six ounces of fresh root instead of two.

W. A. G.

## Translations.

### THE PATHOLOGY OF RHEUMATIC FACIAL PARALYSIS.

By DR. O. BERGER.

Translated from the *Deutsche Med. Wochenschrift*, Dec. 9, 1876.  
By H. M. BANNISTER, M. D.

The extraordinary frequency of rheumatic facial paralysis, and in so many cases the indisputable clearness of its etiological conditions, very naturally cause it to be considered, as has been usually the case, the typical form of rheumatic nervous paralysis. Facial paralysis itself has been the starting point of a series of investigations, which the pathology of peripheral paralysis has to thank for the very high grade of perfection the diagnosis and prognosis of these affections have attained. Still, there remains a very palpable defect to be remedied, pathological anatomy is not in the condition to inform us as to the nature and seat of the anatomical lesion underlying facial paralysis. There remains to be made, therefore, only a careful clinical analysis, to supply the decisive answer to the question of the localization of the cause of the paralysis. Whoever is accustomed, not to notice merely the gross paralysis of the facial muscles of expression, but, mindful of the important physiological routes of conduction included in the facial nerve, to take the trouble to notice also other functional disturbances, will easily be in a position to give a tolerable local diagnosis. Erb\* has recently reviewed the subject in an excellent memoir, and has demonstrated that with especial attention to the separate branches of the facial nerve, (posterior auricular, chorda tympani, stapedius, superficial petrosal nerve,) an absolute localization of the anatomical seat is possible in many cases. The fact that rheumatic facial para-

\*On Rheumatic Facial Paralysis. *Deutsche Archiv. f. Klin. Medicin* 15 Bd.

lysis regularly affects all the facial branches, makes permissible the conclusion that the lesion which affects the conduction of the nerve is situated in the stem of the facial and not in any one of its branches. This can be either in the short section outside of the Fallopian canal, (after its exit from the stylo-mastoid foramen), within the same, or in the course of the nerve up to the base of the cranium. Trouble in this last named situation will scarcely be looked for, and in general we have to do with disorder in the first mentioned two localities. Various authors have expressed the opinion that every case of rheumatic paralysis, the light as well as the severer forms, has its anatomical seat in the Fallopian canal. Thus Baerwinkel\* sometime since, and again more recently, has stated that the disease is always accompanied with an affection of the middle ear, the lighter ones with a serous, quickly absorbable exudation, and the severer forms with a plastic exudation. Convincing grounds for this were not given, and on the other hand the view is sufficiently satisfactory that in mild cases the anatomical lesion is situated in the nerve stem outside the Fallopian canal, and in severe ones within the same, and it has received the most general adoption.† In the inflammatory (rheumatic) swelling of the neurilemma which is usually considered to be the anatomical basis of the "refrigatory" facial paralysis, there would be in the first case, with its favorable mechanical conditions, only a mild form of the paralysis, and in the second, on the other hand, on account of limitation of space, a severe compression, and resulting secondary degeneration of the nerve would be produced. Erb, in his conclusions in the above mentioned extended memoir, speaks in favor of this view. As characteristic of the localization of the lesion in the stem of the facial after its exit from the stylo-mastoid foramen, we may mention the paralysis of the facial branches while the hearing, taste, salivary secretion, and the palate remain unaffected. A further evidence of this localization is an

\**Archiv. der Heilkunde*, 1867, S. 82. *Deutsche Arch. f. Klin. Med.* 14 Bd. S. 122.

†Compare, among others, the exposition of facial paralysis by Eulenberg (*Lehrbuch der funct. Krankh.*) and by Erb, (*Ziemssen's Handbuch der spec. Pathol.*).

intact condition of the posterior auricular nerve, which leaves the stem close to the stylo-mastoid foramen, and innervates the occipital and the small aural muscles, and which, as Erb remarks, forms the boundary mark for the portions of the facial within and without the Fallopian canal. In spite of the abundance of casuistic material there are few cases in which this criterion can be made use of. The reason for this is sufficiently plain. The paralysis of this branch can only exceptionally be determined by the failure to move the ear, in those rare individuals who possess the ability to do so normally. Nevertheless, we can resort to another means to accomplish this. The electrical examination should be resorted to in all these cases, and it would not be difficult to demonstrate the pathological condition of this nerve. Thus Erb says that he himself in all severe cases in which he suspected the implication of this nerve has found it upon applying the electrical tests, a statement that perfectly coincides with my own experience. The case is different, however, with those slighter forms in which we find no perceptible change in the electric excitability, and in which we also desire to test the mobility. Erb has therefore suggested, correctly, that it would be to the highest degree interesting to obtain some certain data upon the condition of the posterior auricular nerve in the milder cases of rheumatic facial paralysis. I am now able to satisfy this want. For some years I have maintained in my lectures the proposition, supported by numerous clinical demonstrations, that the anatomical localization in rheumatic facial paralysis, in the mild as well as in the severer forms, must always be sought for in the Fallopian canal; and that the position assigned the lesion by the majority of authors, in the short section of the nerve after its exit from the stylo-mastoid foramen, is perfectly unsupported by evidence. Thus it is incomprehensible why injurious atmospheric influences should always affect the main stem of the nerve and never its separate branches, notwithstanding the fact that the latter are relatively much the most exposed. I know of no case of recognizable rheumatic facial paralysis in which all the facial muscles of the side were not involved in the paralysis, and must refer

opposing statements to fallacious observations. A relative integrity of certain branches may indeed be observed under peculiar circumstances,\* but never an absolutely intact condition of single muscles. There is, moreover, no positive proof for the position I have above mentioned. The grounds upon which this statement seems to me to rest are as follows:

1. I can enumerate a number of cases of slight (rheumatic) facial paralysis in which electrical examination a short time after the appearance of the paralysis (8 to 80 hours), showed a perceptible and indubitably proven increase of the direct and indirect electrical irritability (to both currents). In all these cases the posterior auricular nerve and its innervated muscular region shared in this increase. I have been able repeatedly to demonstrate this to my hearers.

2. Several cases in which the disturbances of function on the part of the chorda tympani, twice also of the stapedius, allowed a diagnosis of the lesion within the Fallopian canal, nevertheless followed the course of the milder forms, and during their whole course showed no indication of the "*Entartungsreaction*," the paralysis disappearing in from eighteen to twenty-seven days.

3. Finally, I have come across one case that is absolutely confirmatory of my view. A few words will suffice for its description. On October 12th of this year, my colleague, Dr. Hannes, referred to me a railroad employe, August Schikora, aged thirty-eight, for electrical treatment. Three days previously he was taken with facial paralysis, from working many hours with heated sweating body in a draft of air under an open shed. No disturbances of sensibility or aural symptoms had appeared. On the contrary, the patient stated that since the appearance of the paralysis, while eating he had the sensation on the right anterior half of the tongue as if every thing was unsalted, but still

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\*A single instance only is reported recently by Baerwinkel, of uninvolved posterior auricular nerve, in a case of severe paralysis with proven localization within the Fallopian canal, (chorda tympani implicated). It cannot be accepted as a satisfactory case of "isolated exemption," since, according to the author's own statement, the faradic reaction (and as it appears, the motility also) was diminished as compared with that of the sound side.

there were no spontaneous subjective taste sensations. This peculiarity, moreover, disappeared entirely in a few days. *Status præsens*, October 12. Total right facial paralysis. Uvula and palate normal, alike when at rest and in movement. With objective testing of the sense of taste, the same perfection was found on the right as on the sound side. No abnormality of the salivary secretion. Tongue projected straight forward; no disorder of hearing. Sensibility altogether intact, reflex excitability of the paralyzed muscles increased.

*Electrical examination.* High degree of increase of faradic and galvanic (direct and indirect) excitability, tolerably uniform in all branches, and especially demonstrable in the ramus frontalis; difference of the faradic contraction minimum 15-20 mm., with stronger currents the right contraction somewhat stronger than the left. No qualitative alteration of the contraction law; on the other hand, a notable increase of the mechanical irritability, demonstrable from the separate nerve branches as well as by direct excitation of the muscle; no retarded character of the contraction. The posterior auricular nerve and its muscles (occipital, retrahens auri, and attollens auri) also showed this increased reaction. While I was already clear in mind as to the participation in the paralysis of the posterior auricular nerve and its muscles, this fact was, in this case, also demonstrable by testing the voluntary action of these muscles. In reply to questions, the patient stated that he had been conscious immediately after the occurrence of the paralysis, together with the general loss of motility of the muscles of the face, of an inability to do what he had long been able to do, to move the ear on the right side.\* Even the first days following the

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\*This ability seems, according to my private experience, to be not altogether so uncommon. Yet it rarely happens that a person thus gifted suffers from facial paralysis. Two analogous cases, previously seen by me were of the severer variety and unsuited for the decision of the matter in question. It is self-evident that the independence of the contraction must be supported by close examination and palpation of the relatively strongly developed ear muscles, and of the adjoining parts of the head. By energetic innervation of the frontal muscles it is tolerably easy to produce a pseudo-movement of the concha.



paralysis he had proven this to himself and to his wife before the mirror. Examination revealed that the right ear like the facial muscles remained perfectly quiet to all voluntary impulses, while the left could be moved forwards and backwards voluntarily in the most pronounced manner. On the fifteenth of October (sixth day of the paralysis) the electric irritability had already become less from day to day, and on the twentieth it was exactly alike on either side of the face; the posterior auricular also participated in this change. From the commencement of the treatment the paralysis visibly improved, and the mobility of the right ear increased in the same ratio as the return of mobility in the muscles of expression, it was interesting to notice its gradual improvement. On the thirtieth of October (twenty-first day after the appearance of the paralysis) I was able to discharge the patient thoroughly cured without a trace of asymmetry; and with a special subject of enjoyment on his part, that with the perfect functional ability of his facial muscles, he had also recovered his old power over his right ear.

This case affords a characteristic example of the lighter form of rheumatic facial paralysis. On the fifth day there were signs of returning nervous conduction, a week later the motility had perceptibly improved, and after three weeks—even a day or two sooner—the cure was complete. The participation of the posterior auricular nerve, the primary increase of electric excitability, and its later decrease, show that the anatomical seat of the lesion is to be sought within the Fallopian canal. Immovability of the corresponding ear, definitely established, and a localization of the lesion in the trunk of the nerve after its exit from the stylo-mastoid foramen, together, are incompatible.

From the normal condition of sense of taste and the salivary secretion (the slight temporary paraesthesia of taste must be referred to a slight irritation of the chorda tympani by reason of its neighborhood to the lesion), we are led in one case to place the special seat in the lowest portion of the Fallopian canal, external to the giving off of the chorda.

Thus we have afforded the desired evidence of the localiza-

tion of the lesion interrupting nervous conduction in the Fallopian canal, in the milder form of rheumatic facial paralysis. So long as the opposed condition (absolute freedom from paralysis of the ear muscles) is not proven, the presumption of the localization of the lesion outside of the bony canal appears to be a gratuitous and unsupported hypothesis.\*

Under any circumstances, our observation is an unassailable proof that the difference of the affection is not due to a different location, but to the intensity of the anatomical process; it is not—as according to the views generally held hitherto—the indications for one or another seat of the anatomical lesion, but singly and alone a methodic electrical examination—and this some days after the appearance of the paralysis—that gives us a satisfactory criterion for a reasonable prognosis in regard to the duration of the not dangerous, it is true, but nevertheless very disagreeable rheumatic facial paralysis.

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\*Here comes in the question, why the injurious local influence of cold never affects single branches, but always the nerve stem? Perhaps we may mention here those cases of slight local rheumatic affections, not infrequently met with, in which from exposure to cold air, drafts, etc. of the face, there is developed a certain stiffness and sense of immobility—generally in the muscles of the cheek—which lasts but a short time and then disappears. Here we have perhaps to do with slight disturbances of nutrition of certain nerve-twigs, which on account of the unrigid character of the soft surrounding tissues do not give rise to any compression interrupting nervous conduction. We may also mention the slight disturbance of sensibility almost always accompanying these conditions, which must naturally seem to us to be due to the intimate association of the trigeminus fibres with the branches of the anserine plexus; while in the case of a lesion of the main trunk of the facial the trigeminus branches are naturally unimplicated.

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## Clinical Reports.

### RUSH MEDICAL COLLEGE CLINIC.

Service of PROF. MOSES GUNN.

(Reported by EDMUND M. LANDIS, M. D.)

#### *Pulpy Degeneration of the Knee Joint.*

Mrs. M. D., American, aged 25. The patient, whose previous health had been good, states that three years ago, she fell from a fence, alighting on her heel, after which the right knee became swollen and painful. Since then it has gradually and slowly enlarged. The knee has been more swollen than now, but has never been red. The pain is moderate but is greater than formerly. The leg is slightly flexed. The patient's health has gradually failed, having lost some forty pounds.

On examination, taking the sound limb as a standard of comparison, find that the tissues on either side of the patella are larger, giving to the touch a sensation of *elasticity*.

This last fact is important, as the symptoms in the case simulate hydrarthrosis, but differ in the point of elasticity, the absence of fluctuation, and in the impression on the patient's health.

Pronounce it "Pulpy Degeneration of the Knee Joint" which has invaded the tissues about the joint, filling them up and extending outside.

The patient has come for advice as to the removal of the leg. She has been under competent treatment, but has not improved. Personal experience with this form of disease does not allow me to extend hope of benefit from palliative treatment.

Hueter claims fine results in these cases from injections of weak solutions of carbolic acid; but in the cases which have come under my observation, this has not been corroborated (the fact however, has been demonstrated, that weak solutions of carbolic acid can be injected into the knee joint with perfect impunity, as the point of the syringe was carried on a number of occasions right beneath the patella).

*Periostitis.*

John H., Irish, aged fifteen, painter. The patient is a poorly nourished lad, who, his parents state, has no hereditary taint, and whose only previous sickness was scarlet fever, which he had seven years ago.

One and a half years ago, the boy received a blow on the left tibia from a shinney stick, but at the time was not apparently much injured. Three months afterwards he was taken with severe pains in the leg, which lasted some two or three months, and which were worse at night, keeping the patient awake until two or three o'clock in the morning.

There have been five or six such attacks, with intervals of two or three months. Is suffering from one now, which commenced three weeks ago. The leg has gradually enlarged from the first, but only to a slight degree of late.

On examination find the left tibia enlarged forward along the whole extent of the crest, thus increasing its antero-posterior diameter. There is a slight, lateral enlargement, but it is confined to its lower extremity. Strong percussion elicits pain, which is greatest near the ankle.

This is a rare form of periostitis, rare in the shape of the enlargement it has produced. A healthy lad, free from disease except the attack of scarlet fever seven years previous, receives a blow on the skin, which was not painful, when three months afterwards it began to pain and enlarge. (The pain at the ankle is probably sympathetic.) We frequently encounter these enlargements, but not in this form. On grasping the tibia it is found that it is not enlarged laterally except at its lower part. The question, however, is whether we have hypertrophy or abscess. We frequently have enlargements from bone abscesses, but they increase the diameters in all directions, while the enlargement is more localized. Hypertrophy with abscess, also frequently occurs, and is also more circumscribed than in the present case. Periostitis with hypertrophy, is not usually so painful as abscess, having painful periods with exacerbations. The pains in this case have been nocturnal for two months at a time.

Have trephined for three cases, at times removing large de-

posits of pus, at others only obtaining a drop or two, and again not demonstrating that there was an abscess, yet in all giving relief.

Think that the nocturnal pains point to an abscess, but it would be difficult to find the point in the bone to strike it, although there are several which seem suspicious.

It is thought that an incision through the periosteum might afford relief.

The patient was anæsthetized, and an incision about eight inches in length made through the integument, along the crest of the tibia, down to the periosteum, which was then incised by five parallel incisions co-extensively with the incision in the integument.

As the incisions were made in the periosteum, some half a dozen or more enlarged periosteal vessels spurted very freely, showing its abnormally vascular condition. The edges of the incisions gaped and the periosteum was found thickened and spongy. After hemorrhage had ceased, the wound in the integument was brought together and secured by interrupted sutures.

Warm water dressings were ordered. The pain which had been regular up to the time of the operation, ceased, and has not yet returned, the patient sleeping the first night and every night since. The wound healed kindly and rapidly, and the patient has resumed his occupation.

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## CHICAGO MEDICAL COLLEGE CLINIC.

SERVICE OF PROF. S. J. JONES.

[Reported by S. O. RICHY, M. D.]

### *A Case of Clonic Blepharo-Spasmus.*

February 28th, 1877. Mr. C., a railroad employe, has been a clerk for fifteen years past, working continually, much of the time by artificial light. Hard work, inability to get sufficient sleep to recuperate his strength, and an immoderate use of tobacco combined to produce marked nervous depression.

In both eyes vision is normal ( $v=\frac{3}{8}$ ).

There is violent spasmodic action of the upper lids of both eyes, which, besides the annoyance it gives, interferes with the performance of his duties, because his eyelids will close at the most critical time.

He is advised to secure all the sleep possible, to eat good nutritious food, to rest the eyes, and to give up the use of tobacco and stimulating drinks. A shower bath for the eyes, and the elixir of calisaya, iron and strychnia are prescribed for him, with twenty grains (gr. xx) of bromide of potash, daily, when going to bed.

March 2d. He returns improved; the spasm of the lids has ceased, he sleeps better, eats more heartily and seems more vigorous.

March 5th. The improvement continues, the change being perceptible even in his complexion.

March 20th. The patient has been seen several times since the 5th inst., each time being stronger than before. He has had no return of the spasm.

The spasm of *both* lids, the absence of local inflammation, with the other symptoms mentioned, directed attention to the condition of the general system as the cause of the affection, the spasm being a local evidence of general nervous debility.

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#### NOTES FROM PRIVATE PRACTICE.

##### *Congenital absence of Uterus and Vagina:*

Simply as a matter of record, I report the following case of congenital absence of the uterus and vagina, which lately came under my observation.

Miss H.—aged 19—nationality, Irish—third child in a family of six children, four of whom were boys. She says there is no deformity or arrest of development, either in any of the other children, or anywhere else among any of her other relatives; that all are perfectly formed and healthy.

She has never menstruated, but about once a month she has some headache and a sense of fullness in the abdomen.

She was first led to believe that "something was wrong" with her about a year ago, from the fact that she "did not have her courses as other girls do." She says she enjoys the society of the opposite sex she "supposes the same as any girl does." Apparently she is a perfect specimen of young womanhood—tall, well developed, robust and active. Examination (afterwards confirmed by Dr. W. H. Byford of this city) showed, the parts well covered with hair; labia majora and nymphae, as well as clitoris and hymen well developed and natural. Meatus urinarius normal in position. Mammæ large and also well developed, but the most careful and rigid examination *failed to find either vagina or womb*. There is, however, no reason to doubt the existence of the ovaries.

Chicago, June, 1877.

A. W. GRAY, M. D.

*Local anæsthesia.*—In the following communication, I wish to call the attention of the reader to a simple method of producing local anæsthesia in some operations of minor surgery, as in opening an abscess, excision of inverted toe-nails, etc. The contrivance is a very old one, yet it is not so thoroughly appreciated by practitioners, as in my opinion, it ought to be, for it is extremely simple and reliable. The principle upon which the method is based, is the fact, that a mixture of equal parts of ice or snow, and common salt produce a very high refrigerating action of from 0° to 17° C = from 32° F to 0° F (according to Hager's text-book). The way to make use of this physical fact in surgery is as follows:

Take pounded ice or snow - one part (spoonful),

Common salt - - - one part (spoonful)

Put both on a soft rag (musquito netting); mix it to form a kind of poultice and press it quickly against the skin, where you intend to make an incision. In a very short time the skin freezes and becomes absolutely insensible and bloodless, thus affording the double advantage of avoiding any pain and of preventing the blood from obscuring the field of operation. As to the length of time this state of the skin might be main-



tained without endangering its vitality, I have made no experiments; but I think it may be continued a longer time, than is required for the performance of any minor operation.

As the temperature begins sinking the moment the ice and the salt are brought in contact, all that is necessary for the performance of the operation must be ready before making the mixture. Special care must be taken to have the knife as sharp as possible, for the frozen skin is remarkably tough, and resists the instrument to a high degree.

I may add, that, if the fingers or toes be the parts on which an operation is performed, the ice-salt-poultice seems the best method of applying the refrigerating mixture, because we can cover the finger or the toe all around with ice; but on the other hand, if a larger surface (for instance, the breast in a case of mastitis suppurativa) be the object of operation, we best proceed by putting on the spot, previously selected for incision, a piece of ice as large as a hickory-nut, that is then sprinkled with salt. Almost instantly the skin beneath the ice freezes; then we take away the ice and salt and make the incision. That the size of the ice-salt poultice in the one case, and the size of the piece of ice in the other depends, after all, upon the length of the intended incision, is hardly necessary to be mentioned.

The following two cases may be reported to confirm the above statements:

1. Some time ago I was called to a woman, who received a splinter of wood under the nail of the right thumb, while she was washing the floor. I saw the patient 3 days after the accident; the splinter which had advanced as far as the root of the nail was broken short at the edge of the nail, in consequence of previous attempts at pulling it out. A diffuse swelling, throbbing and burning indicated that inflammation had already set in; the patient was nervous and feverish, and was so excited by fear of the knife, that she would hardly allow me to touch the finger. But being assured she would not feel any pain from the operation, she submitted to it. I applied an ice-salt poultice (as described) close around the nail-phalanx of the thumb. After some 2 or 3 minutes the thumb was frozen

and completely white and insensible. Having cut open the nail with a pair of scissors all along the splinter, I removed the latter, with the pus which had begun to form around the foreign body, and finally cleansed and dressed the wound, while not a drop of blood came out and while the patient had not the slightest feeling of what was going on.

2. Some 3 weeks ago, I saw a case of mastitis suppurativa in puerpero. The pus was deep-seated, fever high, and the patient, a young married woman of nervous temperament, excited to the highest degree, by the thought that she would have to be cut. For obvious reasons, I insisted upon opening the abscess at once. As in the first case, I had some difficulty in persuading the frightened patient to follow my directions and not to think of pain. Yet, after all, I was allowed to proceed. I put a piece of ice as large as a hickory-nut on the spot, which seemed the most suitable for incision, and sprinkled the ice with common salt. Almost instantly the skin, in the circumference of a quarter of a dollar, became white, and having removed the ice, I plunged the knife through the frozen skin, into the abscess. The patient who lay there shivering from fear, did not feel the incision at all, and was greatly surprised when she opened her eyes, by seeing the pus flow out.

DR. H. BANGA, Chicago.

### **Reports of Societies.**

#### **MINNESOTA STATE MEDICAL SOCIETY.**

The ninth annual meeting of the Minnesota State Medical Society was held in the city of St. Paul on the 19th of June last, continuing for two days, Dr. F. H. Milligan, of Wabasha, presiding.

The meeting was characterized by the usual harmony and good feeling, and, in addition, by the reading of a number of papers and reports of decided ability, as well as by the action of the Society upon various matters, of interest both to our own State and to the profession at large.

The President, Dr. Milligan, in his opening remarks, made certain suggestions of great practical importance; of greater importance, perhaps, to those practiced upon, than to those who practice; although by no means destitute of benefit to the latter class. Of these, the most valuable were recommendations to the Society to adopt measures looking to the enactment of laws by the Legislature making vaccination compulsory, and also, to require all aspirants to pharmaceutical honors to appear before a board of properly qualified examiners for examination and license, with a view to the adoption of a higher standard of education in this important branch.

The President also urged the Society to request our congressional delegation to use every proper means to secure an appropriation from the United States for the families of the discoverers of anæsthetics, as a suitable though tardy recognition of the inestimable benefits conferred by them upon mankind.

These suggestions were unanimously adopted, and committees were appointed to carry their provisions into effect.

Unanimous action was also taken by the Society upon certain recommendations of the Executive Committee, in accordance with which one committee was appointed to co-operate with other organizations in seeking to abolish the duty on quinia, and a second, to endeavor to obtain reduced fares from the railroads in this State for delegates to the meeting of the American Medical Association at Buffalo next year. From all which it will appear that the physicians of this State are in full accord with their brethren in their efforts to promote the interests of humanity, and of the medical profession.

The Society took occasion to reaffirm their previously recorded opinion, that illuminating oils of less than 150° F. flash test are unsafe, and to request the Legislature to restore the test to that standard; they having, most unwisely, seen fit to substitute 130° F. last winter for the higher and safer test.

Upon the earnest recommendation of the Secretary of the

State Board of Health, Dr. C. N. Hewitt, of Red Wing, a committee was appointed whose duty will be to collect and collate facts with reference to the use and abuse of alcohol in this State, taking note of age, sex, nationality, heredity, etc., and to report at the next meeting, so that, if possible, a remedy may be discovered for an evil of vast dimensions, and an era of practical reformation be begun.

Among the papers of special interest was one by Dr. I. E. Finch, of Hastings, chairman of the Committee on Practical Medicine, on Myalgia. The doctor treated his subject with great skill, and succeeded in investing what some had been disposed to regard as trite, if not trifling, with a high degree of interest. His argument, after a close pathological study, was conclusive as to the differentiation of myalgia and true rheumatic affections.

Dr. Franklin Staples, of Winona, read a paper upon carcinomatous affections, citing a number of cases, and supplementing his remarks by the exhibition of photographs, crayon sketches, and pathological specimens.

The report of the Committee on Obstetrics,—Dr. W. L. Lincoln, Wabasha, chairman, elicited a lively discussion as to whether death of the child ever results from strangulation by the cord; the debate arising from a case which was reported, of death in utero from a tight knot upon the cord, there being also a loop of cord around the neck. Some difference of opinion existed, but the general sense of the Society was against the fatal issue of the condition in question. Much interest was shown in the relation of a fatal case of flooding, and the alleged agency of chloroform in conducing to the unfortunate result, by favoring relaxation. Upon this point, it seemed to be the opinion of the majority, that cases, in which chloroform is directly chargeable with the death of the patient, are exceedingly rare, but that due caution should always be exercised in its use.

Other papers of merit were read, and other interesting cases reported, of which want of time and space forbids the mention here, but which will appear in detail in the forthcoming volume of Transactions.

As to personal matters, Dr. W. I. Sloan, U. S. A., now on duty in this city as medical director at the headquarters of the department of Dakota, and one of the oldest and most esteemed members of the medical corps of the army, was elected an honorary member of the Society. The pleasantest feature of the session was the adoption of a hearty vote of thanks to the retiring Secretary, Dr. C. E. Smith, of St. Paul, who had served in that onerous capacity for six years with untiring zeal and marked ability, and, as a more substantial recognition of his services, the presentation to him of a copy of Holmes' System of Surgery—a well deserved testimonial.

The officers elected for the coming yeare are:

President, Otis Ayer, M. D., Le Sueur; 1st Vice-President, C. P. Adams, M. D., Hastings; 2d Vice-President, A. C. Wedge, M. D., Albert Lea; 3d Vice-President, E. E. Collins, M. D., Minneapolis; Treasurer, S. B. Sheardown, M. D., Winona; Recording Secretary, C. H. Boardman, M. D., St. Paul; Corresponding Secretary, E. Phillips, M. D., Minneapolis.

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### Reviews and Book Notices.

THE MICROSCOPIST: A MANUAL OF MICROSCOPY AND COMPENDIUM OF THE MICROSCOPIC SCIENCES, MICRO-MINERALOGY, MICRO-CHEMISTRY, BIOLOGY, HISTOLOGY, AND PATHOLOGICAL HISTOLOGY. Third edition, re-written and greatly enlarged, with two hundred and five illustrations. By J. H. Wythe, A. M., M. D., Professor of Microscopy and Biology in the Medical College of the Pacific, San Francisco. Philadelphia: *Lindsay & Blakiston*, 1877.

The reappearance of this book, one of the oldest, if not the oldest work on the subject which has been published in the United States, is an indication of the interest which microscopical studies have attracted for the last twenty-five years in this country, and would lead one to expect a high character of a book which has kept its popularity so long.

The book, exclusive of the preface and index, containing 253 pages, is divided into thirteen chapters. Chapter I. is made up

of remarks upon the history of the microscope and its uses. Chapter II. deals with the theory and construction of simple and compound microscopes. Chapter III. gives a sketch of some of the accessories of the instrument, and chapter IV. deals with the use of the instrument and test objects. Chapter V. on methods of examining objects, and chapter VI. on mounting and preserving objects. These six chapters occupy sixty-seven pages of matter, and bring us to page 84.

Here the author leaves the general consideration of the subject of microscopy and passes on to particular lines of study.

He gives us one chapter (VII.) on the use of the microscope in geology and mineralogy; one (VIII.) on the use of the microscope in chemistry; one (IX.) on the cell theory. Chapter X. gives a sketch of the lower orders of vegetable life, beginning with the vegetable cell and its parts, the vessels, and other structures found in plants, and then the various substances, as starch, gum, oils, etc., of which they are composed. He then gives a description of the lower orders of plants, including fungi, diatoms, etc. Chapter XI. is made up of a list of the lower forms of animal life; chapter XII. gives an outline of human histology, and chapter XIII. is taken up with the use of the microscope in pathological investigations.

It will be seen that the work includes a wide range of topics, the shortest of which if treated with completeness would more than fill a volume the size of the present one. It may be worth while to go over this book with some minuteness, and see how our author has succeeded in his difficult task of putting an encyclopædia in such a short compass.

Chapter II. is a condensation of the brief and puerile sketch of optics usually found in the ordinary works on the microscope. It seems to us that it is time for such chapters to be expunged from works upon the practical use of the microscope. They are an attempt to popularize the science of optics, a thing as easy to do as to popularize mathematics or Greek, the attempt only ends in filling valuable space with material which is useless at the best, and generally teaches positive error. Those who wish to learn the optical principles of the microscope should go to works on optics.

Our author, instead of improving upon the usual character of such chapters, has rather fallen below it. We need only refer to an example or two. On page 25, (fig. 3.) he give as an illustration of the construction of an acromatic object-glass, a form that was obsolete fifteen years ago. On page 26, he says that the ordinary Huygenian eye-piece is composed of two plane convex lenses, with their plane sides next the eye, *whose focal lengths are as 3 to 1*, and which are placed a distance apart equal to half the sum of their focal lengths.

This is, to be sure, an old formula, but is not used so far as we are aware, by any modern maker. The focal lengths of the glasses are more nearly 2 to 1. Merz, of Munich, uses exactly that proportion; his  $1\frac{1}{2}$  eye-piece has lenses of 2 and 1 inch focal lengths placed about two inches apart. Beck's A eye-piece has lenses of  $2\frac{1}{2}$  and  $1\frac{3}{8}$  inches focal length. Scarcely any two makers use the same formula. A little farther down, he states that Dr. Royston Riggott's aplanatic searcher is an apparatus for getting a greater amplifying power, when, in fact, its main purpose was to improve the correction of object glasses.

Chapter IV. is common-place, and much behind the times. On page 56, in speaking of Nobert's lines, he reproduces the substance of the paragraph on the same subject in Carpenter's *old* edition of "The Microscope and its Revelations," and he appears never to have heard of the resolution of these lines which within the last few years has become so common. In the next paragraph, he goes on to speak of some of the more common test diatoms, but he is evidently unacquainted with the structure of these objects as seen with modern objectives.

Chapter V., on "The Modern Methods of Examination," being a condensation of chapters seven and eight of Frey's work on the microscope, is better. In many portions, however, the descriptions are so brief as to be almost unintelligible to the beginner, especially when he departs from his master and attempts a description on his own responsibility. On page 62, for example, he conveys the impression that substances hardened in watery solutions may be imbedded in wax or paraffin without the withdrawal of the water. The ruin of a few val-



nable specimens by a trial of this method will be sufficient to convince the novice that there is something wrong in it. Such hasty and imperfect descriptions only do harm, by leading to inevitable disappointment in the novice who, at the best, is doomed to encounter difficulty and disappointment enough to discourage any but the most persevering even when the best is done for him by his author.

Chapter VI., although commonplace enough, is exceedingly incomplete. It is deficient in giving neither the newest methods, nor the best of the old methods. For example, in his description of the method of mounting in balsam, he makes no reference to the method of mounting *wet* preparations by transferring through absolute alcohol to oil of cloves, or turpentine, to balsam; one of the most valuable as well as the most common of the modern methods of mounting. Nor does he speak of the use of balsam in solution, another exceedingly valuable method.

We need hardly take up the time of the reader by entering into examination of the remaining chapters, which are neither better nor worse than those we have gone over. No one of them, we are sure, would be of use as a working manual for any one, either student or expert.

The plates and cuts are nearly all fac similes of well known figures, and are therefore as a rule, good. Still, we hardly think that Dr. Beale would be willing to accept plate V. as a fair representation of his idea of bioplasm, and he certainly would not be willing to admit that the wretched scrawl opposite page 200 was in any sense of the word a copy of the ganglionic nerve cell which he has described. So, too, Fig. 172 Plate XXIII., evidently intended to be a copy of the well known figure in Stricker, illustrating the structure of the infundibula of the lung, entirely misses the point and fails to give the idea intended to be conveyed by the original figure.

We cannot see what is gained by printing the figures in colors. The substance of the lung is not red even in life, neither is the tubule of the kidney. Neither can we see the advantage in printing them in expensive color, and then printing the titles in black, requiring two impressions, unless in-

deed the object is to make a striking page to catch the eye. Some of these colors positively misrepresent many of the structures which they are intended to show. We would, of course, not include in these remarks such plates as Plate II., which illustrates microscopic sections of minerals, and is a very fair specimen of color printing, nor Plate V., which is intended to illustrate some of Dr. Beale's views, if the execution had only been better. All the others however, in our opinion, would have been better in plain black, and the amount of money which has been used in printing them in colors had been expended in improving their character.

In conclusion, we would say that while the work is not altogether without merit and may be of use to some, more particularly those who desire to get a general idea of the subjects which it treats without engaging in practical work, yet for those who wish a treatise which shall give them help in the practical use of the instrument, we can hardly conceive of a book less useful.

L. C.

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THE THEORY AND PRACTICE OF MEDICINE, By *Frederick T. Roberts, M. D., B. Sc., M. R. C. P.* Second American from the last London edition, revised and enlarged. Philadelphia: *Lindsay & Blakiston.* 1876. Octavo pp. 920.

The first edition of this volume was fully reviewed at the time of its issue in this JOURNAL, so that at this time only a passing notice is necessary. We fully endorse the statement of the reviewer of that edition when he says that "so clear, terse and pointed is the style; so accurate the diction, and so varied the matter of this book, that it is almost a dictionary of practical medicine."

The present edition has been carefully revised, several subjects in great part re-written, and an earnest effort made to bring it up to the times. Among the valuable additions that have been made is the separate chapter on "The Diagnosis of Acute Specific Diseases." In this chapter, after a few remarks respecting febricula, he presents in the form of a table

the chief clinical features of the principal fevers prevalent in this country, and the diseases for which they are liable to be mistaken; and lastly briefly notices the more peculiar or less common specific diseases.

The chapter on "Diseases of the Skin" has been re-written and somewhat enlarged, and is a brief but very valuable discussion of the diseases that are likely to be met with in a medical practice.

In conclusion, we commend the book to the young student and busy practitioner as a faithful exposition of modern medical theory and practice.

D. R. B.

THE ANATOMY OF THE HEAD WITH SIX LITHOGRAPHIC PLATES REPRESENTING FROZEN SECTIONS OF THE HEAD. By *Thomas Dwight, M. D.*, Professor of Anatomy at the Medical School of Maine, Instructor in Histology at Harvard University, Surgeon at the Carney Hospital and at the Boston Dispensary. Boston: *H. O. Houghton & Co.* 1876.

This little book of 136 pages is a very creditable work, indeed. Of course, Dr. Dwight could say little that was really new regarding the anatomy of the head, except as to the relative position of the several organs and structures. This he has done in his text somewhat, but in his excellent plates more. In anatomy and histology, pictures are great educators; they are good educators if they are true to nature. This is especially true of regional anatomy, the branch of the subject in which we most need instruction. These pictures of Dr. Dwight will be in some degree a surprise to every anatomist. The relations in every plate are different from those of the ideal picture anyone would draw—all of which proves that such a study of the subject as this book presents, was needed.

LECTURES ON THE PHYSICAL DIAGNOSIS OF DISEASES OF THE HEART, By *Arthur Earnest Sansom, M. D.*, London, etc. *I & A Churchill*, 1876. 12mo.; pp. 115.

We have read this book with great profit, but very little pleasure. With great profit because it is the work of a master hand, presenting in a strict and succinct style the leading prin-

ciples of the subject of which it treats. With very little pleasure, however, because of the cheap style in which the publishers have issued it. So miserable indeed is the typography, that few will read it without detriment to their eyes.

The volume opens with a "schema" which is the most concise and accurate summary of symptoms, signs and causes of disease of the heart we have ever seen. This is followed by a detailed description of the symptoms based upon a personal observation of one hundred typical cases of disease of the heart, specifying the number of cases in which each special symptom was present. He concludes this chapter by enunciating the important aphorism "that you have never made a complete examination of any patient, whatever his ailment, unless you have estimated as far as possible the condition of his heart."

The next section is devoted to Inspection, and this he begins with the axiom that "you can never make a satisfactory examination in suspected heart disease, unless your patient be stripped to the waist."

He classifies his observations by inspection under (1) hue of the surface, (2) cardiac dyspnoea, (3) oedema, and (4) pulsation. Under the latter heading he concisely states the fact, "that the area of visible pulsations may, however, be considerably increased; although there be no hypertrophy, in nervous palpitation, in some cases of anæmia, in Grave's disease, or in chorea, pulsation may be observed over a space the size of the palm of the hand; you will note however, in such cases, the apex beat is not displaced from its normal position, nor is the chest wall bulged outward."

Lectures follow devoted to palpation, percussion, and auscultation. In the last chapter he maintains with ability that the murmurs located at the apex or base in chorea are due to organic lesion of the mitral or aortic valves.

In conclusion we quote from the modest preface of the author that the "lectures were intended for those students who have mastered the rudiments of diagnosis and were qualifying themselves for careful observations in the hospital wards. It has been thought that they might prove useful also to practi-

tioners as presenting the essentials for the clinical recognition of Diseases of the Heart, according to the most modern views of cardiac pathology. The work is in no sense encyclopædic: It is intended to be suggestive, not exhaustive, and is founded as far as possible upon personal observation and experience."

D. R. B.

CYCLOPEDIA OF THE PRACTICE OF MEDICINE. Edited by *Dr. H. Von Ziemssen*. Vol. V. Diseases of the Respiratory Organs. By *Prof. Juergensen*, of Tuebingen; *Prof. Hertz*, of Amsterdam; *Prof. Ruehle*, of Bonn; and *Prof. Rindfleisch*, of Wurtzburg, etc. *William Wood & Co.*

The authors of this volume and their writings, are so well known to the medical world as to need no comment, and this fact would make an extended review of this volume a work of supererogation.

Prof. Juergensen treats quite fully of croupous and catarrhal pneumonia, of hypostatic processes in the lungs, and of pneumonia from embolisms, its causes, diagnosis and treatment.

Prof. Hertz contributes articles on anæmia, hyperæmia and œdema, hemorrhages, atelectasis, atrophy, and hypertrophy of the lungs.

With regard to the latter, after stating the views of Laennec, Morgagni, Rokitansky, Virchow and others, he says: "We come, therefore, to the conclusion that hypertrophy of the lungs does not exist, and that what has hitherto been considered as such is really some other pathological condition."

Regarding the development of emphysema, the same author avoids controversy by accepting in a measure both of the theories as to respiratory pressure and lesions of nutrition.

Unfortunately he can give us nothing upon which to base a favorable prognosis as to the cure of the disease.

We find exhaustive articles by the same author on gangrene of the lungs, new growths in the lungs and mediastinum, and parasites in the lungs. Prof. Ruehle treats of pulmonary consumption and acute miliary tuberculosis, and sixty pages by

Prof. Rindfleisch are devoted to acute and chronic tuberculosis. This is an interesting article, illustrated by numerous plates. This is one of the best of the volumes of this cyclopædia.

COUGHS, CONSUMPTION, AND DIET IN DISEASE. By *Horace Dobell*, M. D., F. R. M. C. S., etc. *D. C. Brinton*. Philadelphia, 1877.

This little work is made up of a series of extracts from the various published lectures of the author.

It is written in a clear and forcible style, and is founded upon an extensive experience which will render it a valuable acquisition to the literature of these subjects.

After treating of the diagnosis of phthisis, the author discusses the relations existing between bronchitis and emphysema, and details the history of neglected coughs. He dwells at considerable length upon the importance of post-nasal catarrh in the production of winter cough.

After trying a great number of applications in the form of spray, gargle, lotion, inhalation, snuff and lozenge, he has concluded that the best applications for this disease are,

1st. A medicated injection consisting of borax,  $\mathfrak{z}\text{i}$ .; glycerine of carbolic acid,  $\mathfrak{z}\text{ii}$ .; bicarbonate of soda,  $\mathfrak{z}\text{i}$ . to half a pint of warm water.

2d. A medicated snuff consisting of equal parts of camphor, tannic acid, white sugar and high-dried Welsh snuff.

3d. A medicated lozenge consisting of camphor gr. ii.; tannic acid, gr.  $\frac{1}{2}$ ; hydrochlorate of morphia, gr.  $\frac{3}{16}$ ; white sugar, gr. x.; acacia gum, gr. ii.; and,

4th. A rubefacient liniment, to be rubbed behind the ears and on the back of the neck once or twice daily, for which purpose he recommends pure compound camphor liniment.

He devotes considerable space to the discussion of ear cough, an affection usually overlooked by physicians.

The latter part of the book is devoted to the subject of diet for the sick, and although it presents nothing new to those who have made a study of this subject, still it furnishes many suggestions which will be found very serviceable, especially to the younger members of the profession.

A TREATISE ON THE THEORY AND PRACTICE OF MEDICINE. By John Syer Bristowe, M. D., London; edited by James H. Hutchinson, M. D., Philadelphia. Henry C. Lea, 1876.

A system of medical practice is a necessity for the student, and even for the practitioner, and yet, in these days of division of labor, the physician of extended reading sometimes wonders that one man who can hardly be supposed to be familiar with all the diseases in the nomenclature, should essay to write a book intended to comprehend the anatomy, pathology, etiology, treatment, etc., of all the disorders in the catalogue. And this impression, that the science and practice of medicine have developed beyond the mental reach of any one man, is deepened by the appearance of such encyclopædias, as Reynolds' system of medicine, Ziemssen's work, etc., as well as by a comparison of the very meagre article on, or mere reference to, certain diseases to be found in some of works on practice, with the elaborate monographs on the same subjects, by men familiar from long study and large experience with that of which they treat especially. It was not then with any particular satisfaction that we found on our table the new large octavo bearing the imprint, "*The Theory and Practice of Medicine, Bristowe.*" But, having scanned the volume with more than usual care, we are convinced that the author has accomplished the difficult task of adding another acceptable volume to the list of books on Theory and Practice, in a manner that will reflect credit upon himself, and prove of decided benefit to the profession.

This book has one particular charm and advantage. It is eminently inductive; it seems to have been intended by the writer as an educational book, such as a student needs, and just such as every practitioner who wishes to keep fresh in his mind the principles and practice of medicine, would be glad to have the opportunity to read *through*. The language, though not so graceful and flowing as that, of that modern classic Watson's Practice, is yet terse and clear, without having that measure of conciseness and condensation which continually taxes the attention and penetration of the reader.

The method of description of diseases is pleasing, it is not



over methodic—scholastic—but easy and natural; the current of the description not being interrupted by the artificial divisions common to didactic writers, but being from definition to treatment one continuous recital. The treatment with the exception of a few diseases with which, in all probability from want of opportunity of study, the writer is not familiar, seems to us judicious.

In regard to diseases as yet incurable, no long array of remedies are cited, on the contrary, we meet not unfrequently with expressions such as this: "It is not clear that any remedy exerts any, even the slightest, direct influence over the course of this disease." The author has evidently not considered it his province as a teacher to go beyond what is known in the matter of therapeutics. He is disposed, on the contrary, critically to regard the facts bearing upon the curative power of an agent, and candidly to state his convictions thereon. Upon the whole, we know of no work which we could more confidently recommend to the student or the practitioner, intending a review of the field of Theory and Practice, than this book of Dr. Bristowes.

We thus commend it, because the vast array of facts pertaining to the practice of medicine, as it is to-day, are here presented ably, and with that method, order and perspicuity which, in all departments of education, distinguish the lessons of an acceptable and profitable teacher.

Part I. embraces Etiology, Physiological Processes in Health, Physiological Processes in Disease, etc. These chapters contain an exposition of the various subjects fully up to the times; the author writing as one familiar from his own observation, with the more recent and important facts and theories bearing on this subject.

Part II. embraces special pathology, in which the diseases of the various organs are treated of in a systematic manner, and with as much thoroughness as would appear to be consistent with the plan of the work. Upon this section of the book we make the following comments:

The opinion that anasarca occurs more frequently, after mild than severe cases of scarlet fever, is endorsed by the author.

A convalescent from scarlatina should be confined to his room, either in bed or incased in flannels. The treatment by large doses of carbonate of ammonia receives a mere mention.

Opium is recommended for relieving the pains and mitigating the delirium of the stage of invasion of small pox, and especially during the secondary fever. Cow pox is not considered as identical with small-pox. As the discoverers of vaccination, reference is made to the school-master Plett, of Holstein, as having used vaccination in 1771, three years earlier than Benjamin Jesty. The author is of the opinion that scrofula and syphilis are occasionally inoculated by the use of vaccine from the arms of infected children. Specific contagious diseases are believed to depend upon living organism of a fungoid nature.

The resemblance between dengue and relapsing fever is pointed out, and the following query is put, "can the dandy fever be the relapsing fever modified by climate?"

Of epidemic cerebro-spinal meningitis, the author says, there can be little doubt that it is infectious. The chapter on diphtheria is headed "Diphtheria (Membranous Croup)" and he declares the diseases commonly described under these two heads to be one and the same disorder. As to the operation of tracheotomy in diphtheritic croup, the author evidently endorses the maxim, "never operate too late; it is never too late to operate."

Typhoid fever is regarded as "*par excellence* the fever of fecal decomposition."

The treatment of cholera, as given by the author, is very unsatisfactory. He does not attach importance to the treatment of the premonitory diarrhoea. He confidently states his belief "that if a case be simple diarrhoea, it will not run into cholera, and if it be one of commencing cholera, there is no more ground for believing that it can be cut short, than that typhoid fever or whooping-cough may be." Will any physician who has passed through severe cholera epidemics, fail to pronounce these statements as false and full of danger?

From the chapter on syphilis, we extract the following sentence: "It is now established beyond doubt, \* \* \* \* \*

that a person fully under the influence of the syphilitic poison, or who has had an attack from which he has recovered, very rarely, indeed, acquires a chancre, even when inoculated under the most advantageous circumstances, and even more rarely suffers in consequence from the secondary symptoms which so surely follow on the primary inoculation." How the first part of this statement can be made to tally with the fact that inoculations in the method of syphilization have been successfully repeated on the same syphilitic individual, hundreds and thousands of times, may be left to the judgment of the reader.

In the causation and history of ague, it is stated that the disease does not spread from a centre, successively invading town after town, and county after county. This statement is perhaps controvertible, as instances of such invasions are on record. The author denies the influence usually assigned to decaying vegetable matter as a cause of ague, and inclines to refer its origin to contagia similar in nature to those of infectious fever.

In the treatment of malarious fevers, the author seems to have in mind the management of the intermittent type mainly.

The directions, so far as the severe forms of malarial poisoning, remittent and pernicious fevers, are concerned, are entirely too meagre, and therefore defective and insufficient.

In the treatment of erysipelas, the author says: "Ammonia, camphor, iron, quinine, have all been employed in erysipelas, and all are recommended. It is questionable whether any one of them is of material use during the febrile stage of the disease." Certainly this declaration, so far as it refers to iron and quinine, will not receive the general endorsement of American physicians.

We find in the article on percussion this statement, which, we think, will meet the endorsement of many practitioners, and we are the more disposed to quote it, because the race of percussors who claim to be able to detect in the lungs "a tubercle no larger than a grain of wheat" may not yet be extinct. "But although marked dullness is always present when consolidation is extensive, and continuous, it is often absent, or at all events scarcely appreciable, either when an extensive tract of lung-tissue uniformly contains more solid matter or fluid, and

less air than natural, or when miliary or larger nodules of solid tissue, separated from one another by a network of crep-  
itant tissue, are even thickly distributed. Thus congested or  
cedematous lungs, and lungs in the early stage of inflamma-  
tion, on the one hand, and lungs which are the seat of dissem-  
inated tubercles or of lobular pneumonia on the other, are not  
unfrequently so strikingly resonant as utterly to deceive the  
too confiding percussor."

Bronchophony and pectoriloquy, are not regarded as mere  
grades of the same phenomenon. "Bronchophony never be-  
comes converted into pectoriloquy. Bronchophony is the off-  
spring of laryngeal intonation; pectoriloquy of the articulate  
sounds developed within the cavity of the mouth."

In the treatment of both laryngitis and tonsillitis, the author  
recommends opium as giving great relief—a recommendation  
which is here noticed because of our belief, that the misery of  
these diseases is frequently allowed by practitioners to go unas-  
suaged, when a portion of morphine would greatly mitigate  
the distress.

In pleurisy, vocal fremitus is said to be suppressed over the  
dull areas. In the treatment of large pleuritic effusion, the  
author has little faith in the ordinary remedies, and inclines  
toward the early use of the trocar, when such interference  
seems called for.

The author is not disposed to adopt the view of Virchow,  
as regards tubercle; he is inclined to regard the miliary cas-  
eous forms as varieties of the same diseased product. The ex-  
periments of Villemin and others apparently showing the in-  
oculability of tubercle; and also that tubercle may be devel-  
oped by the injection of non-tuberculous matter, are regarded  
by the author as conclusive.

Our author, remarking upon spasm of the trachea says,  
how far this condition may be a matter of clinical importance  
is questionable. Dr. Bristowe believes, however, that when  
aneurismal or other tumors are compressing the trachea, and  
inducing from time to time spasmodic attacks of dyspnoea, the  
immediate cause of the difficulty of breathing is not unfre-  
quently spasmodic contraction of the muscular tissue of the

compressed portion of the trachea, associated, it may be, with more or less hyperæmia, and accumulation of mucus.

Observation and study of attacks of dyspnœa occurring in children after tracheotomy for croup, have convinced us, that certain of these attacks, originating apparently from irritation of the trachea in changing the outer tube, while they are clearly spasmodic, are yet not referable to spasm of the trachea, but to spasm of the bronchioles, induced by the irritation of the parent trunk at the site of the wound. A careful study of the curious facts in the literature of tracheotomy having reference to spasmodic dyspnœa occurring during the "after treatment" or incident in some cases to attempts to remove the tube after restoration of the primarily diseased larynx, will, we think, corroborate this idea.

Dr. Bristowe unhesitatingly attributes Addison's Disease to tubercular infiltration of the suprarenal bodies.

Phlegmasia alba dolens, the author writes, "is due to thrombosis of the trunk veins of the limb, or of the larger veins to which these converge." To the reader bearing in mind the words of Fordyce Barker, "the relation which the thrombosis bears to phlegmasia dolens seems to me to be that of an effect rather than a cause," and again, "I believe that the blocking up of the veins by thrombosis is one of the conservative efforts of nature to promote recovery," such a declaration would seem positive beyond the facts.

In reference to delirium tremens, our author after saying, "recent inquiries show that it is the immediate consequence of excessive drinking," adds, "It may, no doubt, supervene at the time when such persons (excessive drinkers) are commencing to abstain, but not in consequence of their abstinence. This doctrine that mania a potu is not caused by abstracting drink from the drunkard has long had supporters in England, but we think few in this country hold it to be true. On the contrary, so far as our experience goes, it is universally admitted that delirium tremens is very often the direct result of withholding the usual supply of liquor. Dr. Bristowe refers to Dr. Locock, Gairdner, Wilks, Anstie and others, as now

maintaining that delirium tremens is a disease of low mortality, tending to get well of itself, and that opium is not only not needed, but that its use is attended with no inconsiderable danger. Is not the credit of first publishing these facts due to Dr. John Ware, of Boston? As to the treatment the author is quite unsatisfactory. After some good advice as to the general management of the patient, he continues: "Those who consider sleep indispensable would now administer either chloral or some preparation of opium. The chloral is sometimes given with advantage in doses of from ten to twenty grains every half hour till sleep is induced. Opium or morphia may also be given in comparatively small doses at short intervals. It is better, however, we believe, to administer it from the beginning in large doses, and to repeat it or not, according to its effects; to give for example from half a grain to a grain of morphia, or from a half a drachm to a drachm of laudanum at once, and to repeat the medicine in smaller doses at intervals of an hour or two, if sleep be not induced. It may be well to add that patients with delirium tremens are difficult to bring under the influence of narcotics." We object to these directions, qualified as they are by what precedes in the text, as tending to too free use of the articles mentioned. In some cases the repetition of opium, even in comparatively small doses at short intervals till sleep is induced, which, according to Dr. Ware, might be five or seven days, might not be free from danger. Under the old theory of "sleep or death," we remember one case in which a tablespoonful of laudanum was repeated every half an hour, for some time, without inducing sleep, until suddenly the respirations fell to seven per minute, coma and death speedily following. To the writer who once collected statistics of some 250 cases of delirium tremens treated by "opium and the straight jacket," 33 per cent. of which proved fatal, even the guarded recommendation of the narcotic, here quoted, savors of danger.

In acute gastritis, the author recommends opiates in large doses preferably, subcutaneously.

In noting the several modes of onset in peritonitis, that by intense shock or collapse is omitted; though further on it is



said: "Even in the early stage of the disease, when the pulse is little accelerated and sharp, perhaps strong, a little over-exertion, or some unwonted effort may induce dangerous collapse." And again, in speaking of peritonitis, he says: "In the course of the disease, extreme and immediate collapse may occur, so that the symptoms may simulate those of fatal intestinal hemorrhage, or of rupture of an aneurism, or of the heart, or of cholera, fatal without emesis or purgation." In referring to the results of an attack of peritonitis, the author remarks: "In some cases, slowly contracting adhesions compress a length of bowel, and render it practically impervious." In speaking of the pathology of rheumatism, Dr. Bristowe asks: "Is it a local disease, or a constitutional disease?" and in answer to the query he says: "It seems to us that there is little or nothing in rheumatism in respect of its proximate cause, to distinguish it from pneumonia, bronchitis, nephritis, erysipelas, or other examples of local inflammations caused by exposure to cold, or cognate conditions.

In regard to tape-worm, the author repeats the statement generally found in the book, that the *tænia solium* is one of the most common of human tape-worms, remarking, however, that the *tænia mediocanellata* which was formerly confounded with *T. solium*, is equally common. In the observation of the writer, only one case of *tænia solium* has been noted in a series of 40 cases, of which 38 were *T. mediocanellatæ*. The author declares that the symptoms produced by tape-worm, are, upon the whole, trivial and unimportant, many of those infected, enjoying perfectly good health. This is a statement much needed, though it should have been added that the direst symptoms, attributed to tape-worm, occasionally actually depend upon it. No reference is made to an increasing frequency in the occurrence of these parasites, whereas in this city it is probable that patients suffering from tape-worm are met with ten times as frequently as formerly. In treating of thread-worms, the author says, local measures are usually amply sufficient for the riddance, such as strong infusion of green tea, etc., this statement contrasts strongly with that of practitioners, who declare the eradication of these pests next to impossible.

J. B.



BOOKS AND PAMPHLETS RECEIVED.

- On the Nomenclature and Classification of Diseases of the Skin. By L. Duncan Bulkley, A. M., M. D.
- Restriction and Prevention of Scarlet Fever. Document issued by the State Board of Health of Michigan.
- Demilt Dispensary Department of Diseases of the Skin.
- Classification of Diseases of the Skin.
- Tracheotomy in Diphtheria. By J. H. Pooley, M. D.
- The Woman's Hospital in 1874. A reply to the printed circular of Drs. E. R. Peaslee, T. A. Emmet, and T. Gaillard Thomas, addressed "To The Medical Profession," May 5th. By J. Marion Sims, M. D.
- The Woodruff Scientific Expedition Around the World. 1877-79.
- Report of the Board of Health of Quincy, Illinois. For the year ending March 31, 1877.
- Twenty-Eighth Annual Announcement of the Woman's Medical College of Pennsylvania, Phila., 1877-78
- Review of Dr. Squibb's Proposed Plan for the Future Revision of the U. S. Pharmacopœia, being a special report upon this subject. By the Committee of National College of Pharmacy, Washington, D. C., at a special meeting, held May, 28, 1877.
- Titles of the Acts of the Thirteenth General Assembly of the State of Illinois, Approved or Vetoed by the Governor. Also a list of the Members of State Educational, Charitable and Penal Institutions, and the Canal and Railroad and Warehouse Commissioners.
- The Model Physician and Model Patient. A Valedictory Address Delivered in Wieting Hall, Syracuse, Feb. 19th, 1875. By H. D. Didama, M. D.
- Transactions of the Pathological Society of Philadelphia, for 1875-6.
- An Elementary Treatise on Practical Chemistry and Quantitative Inorganic Analysis, etc. By Frank Clowes, D. Sc., etc., etc. Philadelphia. H. C. Lea. 1877.

- Transactions of the American Gynecological Society. Vol. I. For the year 1876.
- Guy's Hospital Reports. Series III. Vol. XXII, 1877.
- Disease of the Mind. By Chas. F. Folsom, M. D.
- Medical and Surgical Reports of the Boston City Hospital.
- Surgical Observations with Cases and Operations. By J. Mason Warren, M. D., 1877.
- Ziemssen's Cyclopædia of the Practice of Medicine. Vol. XII. Diseases of the Nervous System. Vol. XV. Diseases of the Kidney.
- Notes on the Epidemiology of Ohio. By Thomas C. Minor, M. D.
- Scarlatina Statistics of the United States. By Thomas C. Minor, M. D.
- The Association of American Medical Colleges. History of its Organization, its Constitution, By-laws, Articles on Confederation, and List of Members. 1877.
- The Specialty of Diseases of Women. By Clifton E. Wing, M. D.
- Syphilitic Phthisis. A paper read before the Missouri State Medical Association. By Wm. Porter, M. D.
- A Case of Abdominal Pregnancy Treated by Laparotomy. By T. Gaillard Thomas, M. D.
- The Prophylactic Treatment of Placenta Prævia. By T. Gaillard Thomas, M. D.
- Pus in Ovarian Fluids. By James R. Chadwick, M. D.
- Alcohol as a Food and Medicine. A Paper from the Transactions of the International Medical Congress: By Ezra M. Hunt, M. D.
- On the Diagnosis of Urethral Stricture by Bulbous Bougies, with Illustrative Cases. By J. William White, M. D.
- Report of Management of the Insane, of Great Britain. By H. B. Wilbur, M. D.
- Viburnum Prunifolium (Black Haw). Its Use in the Treatment in the Diseases of Women. By Edward W. Jenks, M. D.
- Calculi Found in the Bladder after the Cure of Vesico-Vaginal Fistula. By Henry F. Campbell, M. D.

- History of a Case of Recurring Sarcomatous Tumor of the Orbit in a Child. Illustrated by Thomas Hay, M. D.
- Practical Points in the Electrolytic Treatment of Cystic and Fibroid Tumors. By George M. Beard, M. D.
- Pneumatic Selef—Replacement of the Gravid and Non-Gravid Uterus. By H. F. Campbell, M. D.
- Cholera: The Laws of its Occurrence, Non-occurrence, and its Nature. By C. Sprinzig, M. D.
- Note on Inherited Effects of Lesions of the Sympathetic Nerve and Corpora Restiformia on the Eye. By Eugene Dupuy.
- Transactions of the Nebraska State Medical Society, at its Sixth, Seventh and Eighth Annual Meetings.
- First Annual Report of the State Board of Health of the State of Wisconsin, 1876.
- Thirty-Fifth Annual Announcement of Rush Medical College, Chicago 1877-78.
- The Detroit Medical College Announcement and Catalogue, 1877-78.
- The Annual Announcement of the Department of Medicine and Surgery of the University of Michigan for 187-778.
- Thirteenth Annual Report of the Board of Managers of the Washingtonian Home of Chicago.
- On Albumen in the Treatment of Pulmonary Consumption. By E. L. Shurly, M. D., etc. 1877.
- What is the Comparative Physiological and Therapeutic Action of Free Phosphorus and the Hypophosphites? An Essay to which the "Meritt H. Caste" Prize was awarded by the New York State Medical Society. By Samuel P. Percy, M. D.
- Rare Forms of Umbilical Hernia in the Fœtus. By James R. Chadwick, M. D., etc.
- The Discovery of Anæsthesia. By J. Marion Sims, M. D., etc.
- Labor complicated with Uterine Fibroids and Placenta Previa. By James R. Chadwick, M. D., etc.
- Two cases of Morphœa: with remarks on the disease and its differential diagnosis. By L. Duncan Bulkley, M. D.

## Medical News and Items.

### ILLINOIS STATE BOARD OF HEALTH.

We print in this issue two bills passed by the last Legislature of our State, in which the people and the medical profession are deeply interested. In fact it is the commencement of a new era,—a new departure it may be said,—and we have no doubt that if the spirit and intent of both acts are carried out by the State Board of Health with prudence and judgment, much good will result. We learn from the President of the State Board of Health, that the Medical Practice Act is already having a beneficial effect; the title of Doctor has been removed from signs, others have retired from practice and the city, and daily he receives communications asking all sorts of questions with regard to the law.

The Governor has appointed the following named gentlemen members. They are placed in the order in which they drew their respective terms of office:

Newton Bateman, LL. D., Galesburg; R. Ludlam, M. D., Chicago; A. L. Clark, M.D., Elgin; W. M. Chambers, M.D., Charleston; J. M. Gregory, LL.D., Champaign; John H. Rauch, M.D., Chicago; Horace Wardner, M.D., Cairo.

Taking all things into consideration, we do not hesitate to say that the appointments are as good as could be expected under the circumstances. A weighty responsibility rests upon them, and we sincerely hope they appreciate it.

At the meeting held at Springfield on the 12th ult., after taking the oath of office, Dr. J. H. Rauch, of Chicago, was unanimously elected President and Acting Secretary. After carefully examining the laws, and getting such assistance from the Attorney General, in learning the scope of duty and power of both acts as was at the time necessary, they adjourned to meet in Chicago on the 23d, for the purpose of completing the organization.

In order to carry out both laws, and make them effective, it is absolutely necessary that the profession heartily co-operate with the Board. Why should not all medical men in good standing, whether they come within the provisions of the law or not, take a certificate from the Board, and have it placed upon record in the County Clerk's office, so that hereafter the question with regard to any one engaged in the practice of medicine in this State, will be whether he is on record or not. Such action will no doubt, assist materially in carrying out the Medical Practice Act.

We understand that the utmost harmony prevails in the Board, and we sincerely hope such may always be the case. The subject of registration will occupy the attention of the Board first, and this once fairly under way, examinations of persons practicing without license or diploma will be the order, also the investigation of important sanitary questions.

From what we know of the character of the Board, we would advise all who have no diplomas, and are engaged in practice, to make good use of all the time they have in preparation for the examination. Not that we believe the examinations will be unduly severe, but think they will be of an elementary and practical character, and sufficiently strict to test the qualifications of the candidates as practitioners. Inquiry will also be made into the moral standing of the candidates.

At the meeting of the Board on Monday, July 23, in Chicago, all the members being present, reports of committees were received and adopted, among them the following:

TO THE PRESIDENT AND MEMBERS OF THE ILLINOIS STATE BOARD OF HEALTH:

Your committee appointed on the 12th of July, to prepare a programme for examinations of applications for certificates to practice medicine, and for the verification of diplomas, beg leave to recommend the following list of dates and places for meetings of the Board for those purposes:

*Chicago*—Thursday, November 1st, beginning at 9 o'clock A. M., at the Grand Pacific Hotel.

*Cairo*—Thursday, November 15th, beginning at 9:30 A. M., at the office of Dr. Wardner, No. 111 Commercial avenue.

*Galesburg*—Thursday, December 6th, beginning at 10 A. M., at the Union Hotel.

*Champaign*—Thursday, December 20th, beginning at 10 A. M., in the parlors of the Industrial University.

*Springfield*—Thursday, January 10, 1878, at 10 A. M., at the State House (the regular annual meeting).

The committee recommend that notice of these meetings be early circulated among the profession through the public press, medical journals, and such other notices as may be deemed advisable. [Signed,]

H. WARDNER,

A. L. CLARK,

R. LUDLAM.

NOTE.—Charleston, Coles county, was subsequently added to the list.

A committee was appointed to prepare a circular for distribution, including laws, setting forth work of the Board, with instructions as to examinations, certificates, and inviting co-operation of medical men throughout the State. The forms of certificates were agreed upon, also the seal. A committee, with power to act, was appointed to prepare all the blanks for registration.

In the afternoon the Board, accompanied by a number of the officials, and other representative men of the city, made an inspection of the Chicago river and the crib.

In the evening another meeting was held, at which Dr. E. W. Gray, of Bloomington, was elected Secretary, and Dr. Wardner, elected Treasurer. An auditing committee, and one to draft rules for the government of the Board, were appointed.

On Tuesday, the Board went to the Union Stock Yards, and while there inspected some of the slaughtering and fertilizing establishments.

On Tuesday afternoon, July 24th, another meeting was held, when, on motion of Dr. Chambers, it was agreed to address a circular to all the cities and towns in the State, for the purpose of ascertaining what local health organizations, and what health ordinances are in force in the respective localities. After considering various other subjects, the Board adjourned subject to the call of the President

The following is a full copy of the act to Regulate the Practice of Medicine in the State of Illinois. Approved May 29, 1877. In force July 1, 1877.

SECTION 1. *Be it enacted by the people of the State of Illinois, represented in the General Assembly,* That every person practicing medicine, in any of its departments, shall possess the qualifications required by this act. If a graduate in medicine, he shall present his diploma to the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners herein named, for verification as to its genuineness. If the diploma is found genuine, and if the person named therein be the person claiming and presenting the same, the State Board of Health, if such Board of Health shall be established by law, or the Board of Examiners, shall issue its certificate to that effect, signed by all the members thereof, and such diploma and certificate shall be conclusive as to the right of the lawful holder of the same to practice medicine in this State. If not a graduate, the person practicing medicine in this State shall present himself before said Board, and submit himself to such examination as the said Board shall require; and, if the examination be satisfactory to the examiners, the said Board shall issue its certificate in accordance with the facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

SEC. 2. In case a State Board of Health shall not be established by law, then each State Medical Society incorporated and in active existence on the first day of July, eighteen hundred and seventy-seven, whose members are required to possess diplomas or license from some legally chartered medical institution in good standing, shall appoint, annually, a Board of Examiners consisting of seven members, who shall hold their office for one year, and until their successors shall be chosen. The examiners so appointed shall go before a County Judge and make oath that they are regular graduates, or licentiates, and that they will faithfully perform the duties of their office. Vacancies occurring in a Board of Examiners shall be filled by the society appointing it by the selection of alternates, or otherwise.

SEC. 3. The State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall organize within three months after the passage of this act, they shall procure a seal, and shall receive through their Secretary applications for certificates and examinations, the president of each Board shall have authority to administer oaths, and the Board take testimony in all matters relating to their duties, they shall issue certificates to all who furnish satisfactory proof of having received diplomas, or licenses from legally chartered medical institutions in good standing, they shall prepare two forms of certificates, one for persons in possession of diplomas or licenses, the other for candidates examined by the Board, they shall furnish to the county clerks of the several counties a list of all persons receiving certificates. In selecting places to hold their meetings they shall, as far as is reasonable, ac-



commodate applicants residing in different sections of the State, and due notice shall be published of all their meetings. Certificates shall be signed by all the members of the Board granting them, and shall indicate the medical society to which the Examining Board is attached.

SEC. 4. Said State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall examine diplomas as to their genuineness, and if the diploma shall be found genuine as represented, the Secretary of the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall receive a fee of one dollar from each graduate or licentiate, and no further charge shall be made to the applicants; but if it be found to be fraudulent, or not lawfully owned by the possessor, the Board shall be entitled to charge and collect twenty dollars of the applicant presenting such diploma. The verification of the diploma shall consist in the affidavit of the holder and applicant that he is the lawful possessor of the same, and that he is the person therein named. Such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal. Graduates may present their diplomas and affidavits as provided in this act, by letter or by proxy, and the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall issue its certificate the same as though the owner of the diploma was present.

SEC. 5. All examinations of persons not graduates or licentiates, shall be made directly by the Board, and the certificates given by the Board, shall authorize the possessor to practice medicine and surgery in the State of Illinois.

SEC. 6. Every person holding a certificate from the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall have it recorded in the office of the clerk of the county in which he resides, and the record shall be indorsed thereon. Any person removing to another county to practice shall procure an indorsement to that effect on the certificate from the county clerk, and shall record the certificate, in like manner, in the county to which he removes, and the holder of the certificate shall pay to the county clerk the usual fees for making the record.

SEC. 7. The county clerk shall keep, in a book provided for the purpose, a complete list of the certificates recorded by him, with the date of the issue and name of the medical society represented by the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners issuing them. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The register of the county clerk shall be open to public inspection during business hours.

SEC. 8. Candidates for examination shall pay a fee of five dollars, in advance, which shall be returned to them if a certificate be refused. The fees received by the Board shall be paid into the treasury of the medical society by which the Board shall have been appointed, and the expenses

and compensation of the Board shall be subject to arrangement with the society.

SEC. 9. Examinations may be in whole, or in part in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 10. The State Board of Health, if such Board of Health be established by law, or Board of Examiners may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like causes. In all cases of refusal or revocation the applicant may appeal to the body appointing the board.

SEC. 11. Any person shall be regarded as practicing medicine within the meaning of this act, who shall profess publicly to be a physician and to prescribe for the sick, or who shall append to his name the letters of "M. D." But nothing in this act shall be construed to prohibit students from prescribing under the supervision of preceptors, or to prohibit gratuitous services in cases of emergency. And this act shall not apply to commissioned surgeons of the United States army and navy.

SEC. 12. Any itinerant vender of any drug, nostrum, ointment, or appliance of any kind, intended for the treatment of disease or injury, or who shall, by writing or printing, or any other method, publicly profess to cure or treat diseases, injury, or deformity by any drug, nostrum, manipulation or other expedient, shall pay a license of one hundred dollars a month, to be collected in the usual way.

SEC. 13. Any person practicing medicine or surgery in this State without complying with the provisions of this act, shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than three hundred and sixty-five days, or by both such fine and imprisonment, for each and every offense; and any person filing or attempting to file, as his own, the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and, upon conviction shall be subject to such fine and imprisonment as are made and provided by the statutes of this State for the crime of forgery, but the penalties shall not be enforced till on and after the thirty-first day of December, eighteen hundred and seventy-seven; *Provided*, That the provisions of this act shall not apply to those that have been practicing medicine ten years within this State.

The act to establish a State Board of Health, reads as follows:

SECTION 1. *Be it enacted by the People of the State of Illinois, represented in the General Assembly*, That the Governor, with the advice and consent of the Senate, shall appoint seven persons who shall constitute the Board of Health. The persons so appointed shall hold their offices for seven years; *Provided*, That the terms of office of the seven first appointed shall be so arranged that the term of one shall expire on the thirtieth day of December of each year, and the vacancies so created, as well as all vacancies oc-

currence otherwise, shall be filled by the Governor, with the advice and consent of the Senate; *And Provided, also*, That appointments made when the Senate is not in session, may be confirmed at its next ensuing session.

SEC. 2. The State Board of Health shall have the general supervision of the interests of the health and life of the citizen of the State. They shall have charge of all matters pertaining to quarantine; and shall have authority to make such rules and regulations, and such sanitary investigations as they may from time to time deem necessary for the preservation or improvement of public health, and it shall be the duty of all police officers, sheriffs, constables, and all other officers and employes of the State, to enforce such rules and regulations, so far as the efficiency and success of the Board may depend upon their official co-operation.

SEC. 3. The Board of Health shall have supervision of the State system of registration of births and deaths as hereinafter provided; they shall make up such forms, and recommend such legislation as shall be deemed necessary for the thorough registration of vital and mortuary statistics throughout the State. The Secretary of the Board shall be the Superintendent of such registration. The clerical duties, and the safe-keeping of the bureau of vital statistics thus created shall be provided by the Secretary of State.

SEC. 4. It shall be the duty of all physicians and accoucheurs in this State, to register their names and post-office address with the County Clerk of the county where they reside; and said physicians and accoucheurs shall be required, under penalty of ten dollars, to be recovered in any Court of competent jurisdiction in the State, at suit of the County Clerk, to report to the County Clerk, within thirty days from date of their occurrence, all births and deaths which may come under their supervision, with a certificate of the cause of death, and such correlative facts as the Board may require, in the blank forms furnished as hereinafter provided.

SEC. 5. Where any birth or death shall take place, no physician or accoucheur being in attendance, the same shall be reported to the County Clerk within thirty days from date of their occurrence, with the supposed cause of death, by the parent, or if none, by the nearest of kin not a minor, or if none, by the resident householder where the death shall occur, under penalty as provided in the preceding section of this act.

SEC. 6. The Coroners of the several counties shall be required to report to the County Clerk, all cases of death which may come under their supervision, with the cause and mode of death, etc., as per forms furnished, under penalty as provided in section four (4) of this act.

SEC. 7. All amounts recovered under the penalties herein provided, shall be appropriated to a special fund for the carrying out the object of this law.

SEC. 8. The County Clerks of the several counties in the State shall be required to keep separate books for the registration of the names and post-office address of physicians and accoucheurs, for births, for marriages, and for deaths; said books shall always be open to inspection without fee; and said County Clerks shall be required to render a full and complete

report of all births, marriages and deaths, to the Secretary of the Board of Health, annually, and at such other times as the Board may direct.

SEC. 9. It shall be the duty of the Board of Health to prepare such forms for the record of births, marriages and deaths, as they may deem proper; the said forms to be furnished by the Secretary of said Board to the County Clerks of the several counties, whose duty it shall be to furnish them to such persons as are herein required to make reports.

SEC. 10. The first meeting of the Board shall be within fifteen days after their appointment, and thereafter in January and June of each year, and at such other times as the Board shall deem expedient. The meeting in January of each year, shall be in Springfield. A majority shall constitute a quorum. They shall choose one of their number to be President, and they may adopt rules and by-laws for their government, subject to the provisions of this act.

SEC. 11. They shall elect a Secretary who shall perform the duties prescribed by the Board; and by this act, he shall receive a salary which shall be fixed by the Board, he shall also receive his traveling and other expenses incurred in the performance of his official duties. The other members of the Board shall receive no compensation for their services, but their traveling and other expenses, while employed on the business of the Board, shall be paid. The President of the Board shall quarterly certify the amount due the Secretary, and on presentation of his certificate, the Auditor of State shall draw his warrant on the Treasurer for the amount.

SEC. 12. It shall be the duty of the Board of Health to make an annual report through their Secretary, or otherwise, in writing to the Governor of this State, on or before the first day of January of each year; and such report shall include so much of the proceedings of the Board, and such information concerning vital statistics; such knowledge respecting diseases, and such instruction on the subject of Hygiene, as may be thought useful by the Board, for dissemination among the people with such suggestions as to legislative action, as they may deem necessary.

SEC. 13. The sum of five thousand dollars (\$5,000), or so much thereof as may be necessary, is hereby appropriated to pay the salary of the Secretary, meet the contingent expenses of the office of the Secretary, and the expenses of the Board, and all costs for printing, which together shall not exceed the sum hereby appropriated; said expenses shall be certified and paid in the same manner as the salary of the Secretary.

SEC. 14. The Secretary of State shall provide rooms suitable for the meetings of the Board, and office-room for the Secretary.

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MICHIGAN STATE BOARD OF HEALTH.—The regular meeting of this Board was held at Lansing on July 10.

Dr. Kedzie made a short report on the chemical examination of a specimen of cheese believed to have caused sickness

in several families. He examined it for all the mineral poisons, but found none. He concluded that the poison must be organic in its nature, and that it might come from one of three causes. 1st, diseased milk; 2d, chemical decomposition of the cheese after it was made; and 3d, bad rennet. This poisoning by cheese being so common, he was authorized to visit various cheese factories and further investigate the subject.

Dr. Kedzie made a report on illuminating oils, in which he stated that the legislature had maintained the standard flash test of 140° F., and had provided a chill test for paraffine, which will require an improved quality of oil.

Dr. Lyster sent a communication in relation to the small-pox in Detroit. The total number of cases reported for the year ending June 30, was 278, and the number of deaths, 113. He pointed out the fact that this preventable disease had been allowed to prevail in Detroit for a full year, but at the present time the authorities are taking active measures to prevent the spread of this loathsome disease. He urged the adoption of a resolution for vaccination throughout the State. The Board adopted the following:

WHEREAS, by means of vaccination and revaccination the people may secure complete immunity from small-pox,

*Resolved*, That all local boards of health be advised and requested to direct their health physicians to offer every year vaccination with bovine vaccine virus to every child not previously vaccinated, and to all other persons not vaccinated within five years, without cost to the vaccinated, but at the general expense of the locality, as provided for townships in section 1,736, compiled laws, 1871.

Mr. Parker was asked to attend the meeting of the American Social Science Association, which meets at Saratoga, Sept. 4; and Dr. Hitchcock was asked to attend the annual meeting of the American Association for the Cure of Inebriates, which meets in Chicago, and report anything of interest or value on the subject of public health.

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LIBRARY OF THE MEDICAL PRESS ASSOCIATION. *A Card from the Librarian.*—At the June meeting of the directors of the

Association, the librarian was authorized to circulate the current medical periodicals to such physicians in the city as were willing to make a small subscription for the privilege. Arrangements are now perfected for carrying out this scheme, and a number of physicians have already entered their names on the list of subscribers. Each subscriber receives regularly any six journals he may select from a list of over a hundred, and is allowed to retain each copy five days, so that he has a new journal for reading every five days throughout the year.

It is expected that soon the library will receive a considerable number of medical periodicals, in addition to the present list, so that subscribers to the circulation of journals may be more certain to have just what they wish.

Physicians desiring to avail themselves of the advantages offered, may enter their names with the assistant librarian at the library, 188 Clark street, any day from 10 to 4 o'clock. If at the same time they will designate the journals to be sent them, they will receive the same regularly thereafter.

July 11, 1877.

NORMAN BRIDGE, *Librarian*.

PHYSICIANS WANTED.—Two good places are in need of young, qualified, energetic physicians. One place is in Iowa, and the other is in Nebraska. For particulars, apply to Dr. J. H. Etheridge, 603 Michigan Ave., Chicago.

PROFESSOR EDWIN POWELL sailed for Europe on the 28th ult., in execution of a purpose long entertained of devoting some time to professional study in the hospitals of London and Paris.

CENTRAL FREE DISPENSARY OF WEST CHICAGO, corner Wood and Harrison streets. The report for June shows a total number of patients, 712; number of visits of patients to the dispensary, 2,162; number of visits to the homes of patients, 227; total number of visits, 2,391; number of prescriptions furnished, 2,008; number of vaccinations, 5.

LIST OF CHANGES in the medical corps of the U. S. Marine Hospital Service for June, 1877.

Removed. A. B. Bancroft, surgeon in charge of hospital at Chelsea, Mass., has, after a full hearing, been removed, as recommended by the board of surgeons who lately investigated the management of that hospital.

Resigned. Ralph N. Isham, surgeon. Resigned at Chicago, Illinois, to take effect July 1, 1877.

Promoted. J. B. Hamilton, assistant surgeon. Promoted surgeon vice Bancroft, removed.

Truman W. Miller, assistant surgeon. Promoted surgeon vice Isham, resigned.

Appointed. Francis H. Brown, of Massachusetts, appointed assistant surgeon vice Hamilton, promoted.

John Godfrey, of Alabama, appointed assistant surgeon vice Miller, promoted.

Ordered. Hamilton, J. B., assistant surgeon. To proceed from New York, N. Y., to Boston, Mass., and take temporary charge of the U. S. Marine Hospital at Chelsea, Mass.

Fisher, John C., assistant surgeon. To proceed from New York, N. Y., to Chicago, Ills., and report for duty to Surgeon T. W. Miller.

Brown, Francis H., assistant surgeon. To report to Surgeon Heber Smith, for temporary duty at the port of New York.

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RE-VACCINATION.—The following quotations, in defense of re-vaccination, are from a letter of Dr. Henry A. Martin, of Boston—probably the best authority on the subject in the United States.

“Is secondary vaccination, (or re-vaccination) any protection against small pox or varioloid? Yes, an absolute and perfect protection. A person properly vaccinated in infancy, and re-vaccinated with perfect virus in adult life (after 15 years of age) with vaccinal effect, (*i. e.*, more or less perfect approach to a typical primary vaccine vesicle) is absolutely and perfectly protected from the small-pox or varioloid in any form or degree for the rest of life, excluding the 14 days after re-vaccination was done. \* \* \* .”



"The infinite rarity of occurrence of cases of varioloid or small-pox after such vaccination and re-vaccination, does not at all invalidate or in any way affect the general rule of complete protection, by a successful re-vaccination in adult life. The protection afforded by a perfect vaccination in infancy, with virus not too far removed from the cow, is absolute till the age of 10, nearly so till that of 15. During the wonderful change from childhood to adult life, this protection is more or less rapidly and completely impaired. It is not probable, theoretically, that the effect of good primary vaccination, even in infancy, is ever entirely lost, but in many, practically, it is so."

"Individuals, successfully vaccinated for the first time at 10 years, are generally protected for life; those first vaccinated at 5, or even four years of age, often are so. After the first dentition is passed, every additional month of age adds many months to the permanence of his protection."

"I have more than once seen perfectly defined variola (unmodified small-pox) within a few months after the operation of vaccination was nominally done, but not after true vaccination. All this class of cases are explained"

"1. By patients having already in their systems the germ of small-pox.

"2. By the use of virus so utterly enfeebled by long and careless human transmission as to be very imperfectly protective.

"3. By the use of something (pus, serum, blood, decomposed animal matter, etc.) as vaccine virus, which is not vaccine virus at all, which often, however, produces a sore arm, and sometimes even an imperfect resemblance to true vaccinia."

"If perfect vaccination is done on a person within 3 days after exposure to small-pox, the latter disease is very much modified, often entirely prevented. If from 4 to 6 days have elapsed, it is very doubtful whether the vaccination exercises any modifying effect. It certainly does not prevent the development of small-pox, and if the latter disease has the start by more than 6 days, vaccination has no effect, either modifying or preventive."

"The animal vaccination is the perpetuation of true, original cow-pox, from the original case to a young, selected heifer; from that to another, in endless series, as a source of vaccine virus. This method was introduced into America by the writer in September, 1870. It is quite safe to say that very few persons have been vaccinated in the United States or Canada, during the last five years, with any other than this virus, direct from the heifer, or of very early removes therefrom. However imperfectly appreciated as yet, the vast benefit of this reform will, by and by, be as evident as the sun at noonday. By true animal vaccination, all dangers, real or imaginary, of the transmission of syphilis, or other human diseases, are entirely removed. All the absurd rumors and threatenings of transmission of animal diseases other than cow pox have been proved, now, as in the time of Jenner, utterly fallacious."—*Lowell Daily Citizen*.

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TRANSFUSION.—A case of unusual interest occurred recently at the London Hospital. Mr. James E. Adams, F. R. C. S., was removing the lower limb, at the hip joint, from a boy twelve years of age, when, during the progress of the operation, alarming symptoms of collapse occurred, and the patient seemed about to sink from exhaustion. The operator immediately proposed to personally supply blood by transfusion, and more than eight ounces of blood were injected from his arm into that of the patient, with most beneficial results. Mr. Adams afterwards completed the operation, and the boy is at present progressing favorably.

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BOYLSTON MEDICAL PRIZE QUESTIONS.—The following are the questions proposed for 1878:

1. Antiseptic Treatment. What are its essential details. How are they best carried out in practical form?

2. Diphtheria. Its causes, diagnosis, and treatment.

The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1878, will be entitled to a premium of seventy-five dollars.

Dissertations on the above subjects must be transmitted post-paid, to J. B. S. Jackson, M. D., Boston, *on or before the first Wednesday in April, 1878.*

The following are the questions proposed for 1879:

I. The relation of animal contact to the disease known as Hydrophobia.

II. Evidences showing that so-called "filth diseases" are not dependent upon "filth."

The author of a dissertation considered worthy of a prize on either of the subjects proposed for 1879, will be entitled to a premium of two hundred dollars.

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday in April, 1879.

Each dissertation must be accompanied by a sealed packet on which shall be written some device or sentence, and within which shall be inclosed the author's name and residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

The writer of each dissertation is expected to transmit his communication to the President of the Committee, J. B. S. Jackson, M. D., in a distinct and plain handwriting, *and with the pages bound in book form*, within the time specified.

*Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.*

Preference will be given to dissertations which exhibit original work.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

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MORTALITY IN THE CITY OF CHICAGO, DURING THE FOUR WEEKS, ENDING JULY 21, 1877.—Total number of deaths, 913; males, 479; females, 434; under one year of age, 437. Principal causes of death: Accidents, 20; bronchitis, 7; pleurisy, 4;

pneumonia, 20; phthisis pulmon. 60; diarrhoea, 45; dysentery, 17; cholera infantum, 189; convulsions, 113; meningitis, 34; heart disease, 10; measles, 12; scarlatina, 60; diphtheria, 12.

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## Summary.

### PRACTICAL MEDICINE.

ANEURISMS ON THE TERMINAL BRANCHES OF THE PULMONARY ARTERY. B. Braimwell. (*Edinburg Med. Journal*, May.) B. reports two cases of fatal hæmoptysis, in which the condition of the lungs, at post mortem examination, seemed to confirm the statements of Rasmussen and others, that in many instances, the source of the hæmorrhage is a ruptured aneurism of a terminal branch of the pulmonary artery.

The first patient, a colored man, æt. 21, suffered from extensive pulmonary disease, more marked on the right than on the left side.

While in hospital, he had three terrible attacks of hæmorrhage, expectorating on each occasion between thirty and forty ounces. The man died some thirty hours after the last bleeding. At the autopsy was found extensive tubercular disease of both lungs. The right apex was hollowed out into a cavity the size of an orange. At the inferior part of this cavity, the walls of which were dense and cicatricial, there was a small aneurism the size of a pea. It was unruptured and was situated on a minute branch of the pulmonary artery. A second smaller cavity in the middle of the lung was filled with coagulated blood, partly recent, partly old and discolored.

A second aneurism, the size of a cherry, was found in the cavity. The aneurism had ruptured, by a slit-like opening, about three lines in length.

This aneurism was evidently the source of the hæmorrhage. Firmly adherent to the outer surface of the sac, and partly blocking the ruptured orifice, was a portion of the decolorized

clots. Still lower down there was a third aneurism larger than the others and more irregular in shape.

This aneurism almost completely filled the cavity in which it was situated. The wall was at one point very thin, but it was unruptured. It was situated on a fair-sized branch of the pulmonary artery. The cavity of the aneurism was divided by a well-marked septum into two parts. From the lower end of the sac two efferent vessels sprang.

The second patient, a man æt. 28, suffered from tubercular phthisis. On December 15th, he was attacked with violent hæmoptysis, the blood spirting from the mouth and nose. He was dead in a few minutes. At the post mortem, both lungs were found infiltrated with tubercle. In the left apex there was a cavity the size of a small apple, and in that cavity was situated a round aneurism the size of a cherry.

The aneurism had ruptured by an opening sufficiently large to admit the passage of a good sized probe.

The cavity in which it was contained, the bronchial tubes of both lungs, and the trachea were filled with blood, partly fluid, partly coagulated.

All four aneurisms contained a small quantity of fluid blood. In none was a clot found.

THREE CASES OF DYSENTERY TREATED SUCCESSFULLY BY LARGE DOSES OF IPECACUANHA—GIVEN BY THE NON-EMETIC PLAN. Forester. (*The Boston Med. and Surg. Jour.* Feb. 1877.) The following cases of dysentery treated by ipecac are of peculiar interest, says the author, because of the prevalent notion that large doses of the drug cannot be given beneficially to dysenteric patients without being followed by emesis. Case One was treated by twenty-five grains of pulverized ipecac every six hours, suspended in syrup of orange peel, and patient instructed to remain in the horizontal position, and to abstain from food and liquids during the treatment.

The ipecac, if rejected, to be repeated every twenty minutes until retained. The other cases reported were treated as the first, and the result obtained in each was speedy convalescence, followed by recovery.

W. F. L.

TREATMENT OF FISSURES OF THE NIPPLES DURING LACTATION. Buttler. (*The Ohio Med. Record*, May, 1877.) When fissures of the nipples are not due to some constitutional cause, tinct. of benzoin freely applied to the parts will, in about five to ten days, effect a cure. Only the first application is painful. Tinct. of benzoin forms a covering on the surface of the nipple, and so protects it from the child. Lactation is never interrupted by the above process of treatment.

W. F. L.

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## II. SURGERY.

NERVE-STRETCHING IN SCIATICA.—John Chiene (*Practitioner*, May 1877).—The writer reports two cases of sciatica cured by operation as recommended by Prof. Nussbaum, of Munich. The operation consists in exposing, by an incision, the large nerve affected as the sciatic, and lifting it upon the finger. It is then pulled proximally and distally, and finally the limb of the patient is lifted up from the table by the nerve. Both patients were strong, muscular men, employed as furnace men, and, therefore, exposed to great alterations of temperature. One was left-handed, and the other right-handed. The former had sciatica in the right leg, while the latter had it in the left. This can be accounted for by the fact, that supposing the man to be right-handed, the nerve of the left leg is put on the stretch at each time of heaving coals with a shovel into the furnace. The opposite limb is affected if the man is left-handed. This stretching of the nerve as it passes out of the sciatic notch, the writer thinks is probably one of the causes of sciatica.

Both men had suffered severely with pain, and been unable to work for several months. The various remedies, as quinine, injections of morphine, blisters, galvanism, etc., had been tried without any good effect. In each case the sciatic nerve was exposed by an incision over it below its exit from under the fibres of the gluteus maximus. The nerve was then hooked upon the finger and forcibly pulled from above downwards,

and from below upwards, and the limb lifted from the table by it. The wound was treated antiseptically, and allowed to heal. The relief of pain was immediate after the operation, motion and sensation of the limb were not affected. Both men were able, the next day after the operation, to move their limbs without pain. At the end of two weeks, they were able to get out of bed and walk about, and in a month were discharged from the hospital cured. The *rationale* of this treatment the writer finds difficult to explain. If neuritis is one of the causes of sciatica, and the pathological conditions of the nerve are adhesions and thickening of the neurilemma, which press upon and irritate the nerve fibrils, then probably the result of severe stretching is to break down the adhesions, and remove the pressure from the nerve. It is worthy of mention, that the relief of pain was immediate after the operation, and the functions of motion and sensation were not disturbed. It may then be inferred, that the nerve tissue proper was not ruptured, but the stretching acted on the neurilemma or insulating part of the nerve.

### III. THERAPEUTICS.

A CASE OF POISONING BY SALICYLATE OF SODA.—F. Petersen. (*Deutsche Med. Wochenschrift*, No. 2 and 3, 1877.)—The case was that of a girl, fifteen years old, who had been operated upon. The operation was a resection of the ankle joint. Fourteen days after the operation, through some misunderstanding, she was given twenty-six grammes of the salicylate in course of twelve hours. The toxic symptoms were similar to those that had been observed in the experiments on animals. The psychical symptoms were very prominent; at times she was perfectly rational, then again, delirious. The ravings were of a melancholy nature. This delirious condition disappeared gradually in the course of eight days, the intervals of sanity increasing. The patient had no remembrance of what occurred in this time. While she was rational she complained of severe headache; could not see well at a distance; suffered from strabismus and excessive mydriasis; had



a difficulty in hearing, and a ringing in the ears. The patient was troubled with dysphasia, the author thinks from innervation of n. hypoglossus. The hoarseness lasted four days. Accelerated respiration, forty per minute. The salicylate had no influence on temperature. Of interest are the disturbances of the vaso-motor system. In different parts of the body a dilatation of the blood vessels was noticed. Perspiration for a few days was very considerable.

REMEDY FOR ITCHING.—Boeck. (*L'Union Médicale*, No. 33, 1877.)—The itching which accompanies certain cutaneous affections, such as pruritus, prurigo, and urticaria, constitutes the most painful symptom. To relieve it, the patient is shut up in a box, as for a vapor bath, and under him is placed a box filled with red-hot charcoal, upon which are placed juniper leaves. If they are not fresh they should be moistened with water. The patient is exposed to the vapor every second day for twenty or thirty minutes.

In prurigo, the fumigation succeeds immediately, and several patients treated by this method alone, have left the hospital cured. It has also cured, and without relapses, inveterate cases of pruritus and chronic urticaria. In chronic eczema, and in other cutaneous affections, the effects of fumigation with juniper leaves have not yet been well established. L. W. C.

ANTIBLENNORRHAGIC DECOCTION.—Dupouy. (*L'Union Médicale*, No. 46, 1877.)—Four or five grammes (60 to 75 grains) of kava root, a species of pepper from Oceanica, are grated and macerated in a litre of water (one quart nearly), for five minutes, it being shaken several times. It is then filtered, and taken in two doses during the day, either before or after eating, until a cure is effected.

Twenty minutes after the ingestion of the first dose, the patient feels a pressing desire to urinate; but the micturition is already easier and less painful, and the urine has become clear. According to the author, a cure is obtained in ten or twelve days. The kava does not derange the digestive functions, nor produce diarrhoea nor constipation, and stimulates the appetite by its bitter taste. L. W. C.

MERCURIAL FRICTIONS IN THE TREATMENT OF CROUP.—Foucart. (*Gazette Obstétricale*, 5 May, 1877.)—The author employs mercurial frictions in large doses, and attributes the success which he has had, a greater success than his predecessors have had, who have made use of small doses, to his *modus faciendi*.

In four cases, he has used mercurial frictions in doses of 50 grammes (1.6 ounces) in twenty-four hours. The frictions were made every two hours, alternately around the neck, upon the abdomen, legs, and soles of feet, and the anointed parts were then covered with a layer of wadding. To prevent its action on the gums, he gave at the same time chlorate of potassium. Finally, he prescribed an antimonial potion, which, except in case of imminent suffocation, should only be given 24 or 36 hours after beginning the friction. According to his observations, the mercury had the effect of facilitating the detachment of the false membranes, and of preventing their reproduction by modifying the plasticity of the blood, and this effect was often appreciable in from 24 to 36 hours, as shown by Dr. Simorre, in acute articular rheumatism. An emetic given at the beginning has no action upon the false membranes, which are still too adherent, and it fatigues the stomach, which sometimes becomes refractory to the medicine when its action is the most necessary, that is when the false membranes become loosened.

Of four cases thus treated, two, a boy of three years and a little girl of four years, recovered after vomiting pieces of false membrane and segments of tubes. The other two, girls aged eighteen months and six years, respectively, died, but the author believes they would have recovered if the plan of treatment had been faithfully carried out by the children's parents.

L. W. C.

SALTS OF COPPER IN FOODS AND DRINKS.—M. Decaisne. (*L'Union Médicale*, No. 46, 1877.) The author called the attention of the Académie des Sciences, session of 16th April, 1877, to a paper read by him in 1864, on *Absinthe drinkers*. In that paper he said that a large number of the inferior kinds

of absinthe possessed all the characters of sulphate of copper, and that a certain proportion of the 150 absinthe drinkers under his notice presented, besides the alcoholism which he was then studying, well-marked symptoms of poisoning by copper.

Fifteen samples of absinthe, collected in the faubourgs of Paris, and analyzed for him, showed, without exception, the presence of sulphate of copper in variable quantities. Some distillers avowed that they added the sulphate of copper for the purpose of coloring it.

Recently, a case reported to him by Dr. Dubest of a young man who had taken a quantity of brandy, presented all the symptoms of acute poisoning by the salts of copper, and life was endangered. This brandy, on analysis, showed the presence of 1.64 grammes of acetate of copper to the litre. The brandy had been distilled in an apparatus which had not been used for a year, and which was charged with acetate of copper.

Dr. Decaisne submits to the Academie the following reflections:

1. That the annals of science, in France and abroad, are full of facts demonstrating poisoning, either acute or chronic, by the salts of copper.

2. That a large number of industries use these salts openly, or for the adulteration of foods and drinks.

3. That improper care of the vessels and utensils employed for industrial and domestic purposes, frequently determines the formation of dangerous salts of copper in greater or less quantities.

4. That the statistics of criminal poisoning in France, from 1857 to 1863, show 110 attempts upon human life by the sulphate and acetate of copper, and assign to these two substances the third rank among poisons used for criminal purposes.

Without wishing to judge of the value of experiments undertaken lately to clear up a question which appears to him improperly stated, he thinks that, in the name of the interests of public hygiene and of justice, it is the duty of hygienists and

physicians to counteract the dangerous and fatal tendency to present to the public the salts of copper as almost inoffensive.

L. W. C.

REMEDY FOR WHOOPING-COUGH.—M. Dervieux.—(*Lyon Médical*, No. 11, 1877.) M. Dervieux believes he has found a preservative means in aconite associated with ipecac and cherry laurel water. This mixture is either a veritable preventive, or simply an abortive. His formula is as follows:

Extract of aconite,	.05 grammes	= $\frac{1}{4}$ grain	nearly.
Cherry laurel water,	4.	"	= 1 dram "
Syrup of Ipecac,	3.	"	= $\frac{3}{4}$ " "
Mucilage,	200.	"	= 6 $\frac{1}{2}$ ounces "

This is given as soon as the characteristic cough presents itself, in doses of a teaspoonful every hour to young infants; two teaspoonfuls to those more than three years of age, and a teaspoonful to adults every hour.

L. W. C.

ERGOT IN ATONY OF THE BLADDER.—*The Doctor*, July 1.—At a meeting of the Berlin Medical Society, Prof. von Langenbeck stated that in atony of the bladder, associated with enlarged prostate, in elderly men, in which the organ is never completely emptied of urine, he has lately tried the hypodermic injection of ergotine with most surprising results. In three cases, the contractile power was at once increased, so as to enable the patient to discharge the additional urine, and in a few days it had so augmented that very little urine was left behind. After one or two injections, the improvement was considerable, and even a diminution in the size of the prostate seemed to have ensued. Dr. Israel said that he had derived the same benefit from the employment of ergotine, and referred to the case of a patient who was thus enabled to hold his water for three hours, whereas before he voided it every ten minutes.

CYANIDE OF MERCURY IN DIPHTHERIA.—Dr. A. Erichsen.—(*Med. Times and Gazette*, April 28.) This remedy is strongly recommended, in minute doses, in diphtheria. Of twenty-five

cases treated, only three proved fatal. With its use the membranes become thinner and less adhesive, and even where they had extended into the larynx, threatening obstruction, they had separated, and the larynx again became free. The writer believes that mercury shortens the duration of the diphtheritic process, and that this preparation does not, like the others, disturb digestion or nutrition. To syphilitic children, it may be given for months without disturbance, in doses of  $\frac{1}{8}$  of a grain three times daily. The ordinary dose for a child under three years of age, is  $\frac{1}{6}$  of a grain, once every hour or two.

The following is the formula:

R.

Hydrargyri cyanatis,	. . .	gr. j.
Aquæ destill.	. . .	℥vi.
Syr. simplicis	. . .	℥ss.

M. S. Half or a whole teaspoonful every hour.

ERGOT IN URETHRAL HEMORRHAGE.—Boyland.—(*American Journal of the Medical Sciences*, July, 1877.) "Few anatomical structures are more delicate than the small urethra; few membranes are more highly organized in their physiological action, or more susceptible to pathological process. Reaction, therefore, follows with the utmost facility; indeed, the sensitiveness is so extreme in certain cases requiring antiphlogistic treatment, that the mildest injection is at times productive of urethral hemorrhage. Several patients of this class have fallen to my charge, with whom all injections had to be abandoned, and cold compresses or the ice pack resorted to. These usually afford relief, unless the hemorrhage having continued some time has become aggravated."

Dr. B. then details a case of profuse urethral hemorrhage, occurring in a young colored hostler, after using a mild astringent injection for the relief of a gonorrhœa. The hemorrhage not being controlled by cold compresses, he was ordered fifteen drop doses of fluid ext. ergot every two hours, and rest in bed. After six doses was very much relieved, and a few more doses entirely cured him. The chemico-physiological action of *secale cornutum* upon the capillaries of the urethra, is analogous to that upon the arterioles of the uterus.

D, A. K. S.

**SALICYLIC ACID IN RHEUMATIC FEVER.**—Dr. Southey.—(*British Med. Journal*, May.) After the first week of the fever, ten grains of the acid dissolved in liquor ammoniæ acetatis is given every two hours for the first twenty-four. It is then given less frequently, so as to produce only slight physiological effects, as noise in the head, etc. By this mode of treatment, the temperature is reduced, arthritis lessened, and the patient rendered less sensitive to the pain. It, however, does not prevent endocarditis, or other complications.

#### IV. OBSTETRICS.

**MENSTRUATION BY THE PEDICLE AFTER OVARIOTOMY.**—W. F. Atlee. (*American Journal of the Medical Sciences*, July, 1877.) This menstruation by the pedicle has taken place several times after ovariectomy in the practice of Dr. John L. Atlee. The following extract from a letter by a lady of Morristown, N. J., upon whom he performed ovariectomy in June, 1875, will be interesting in this connection. The pedicle was very short, so short, indeed, that the clamp seemed to touch the left horn of the womb. "I shall try and write as plainly as I can just how I have been since the operation, one small place about the centre of the scar left by the clamp has never entirely healed; for some months except when discharging the exact spot was not perceptible without the closest scrutiny. Since then it has assumed the appearance of a pimple, which has increased in size, and always has a bright red color, and just before it breaks, a purplish red appearance. The discharge always occurs at the time of my monthly sickness—sometimes commencing the day previous—discharging only a few drops at a time followed by blood. The discharge is thin, clear and watery, almost sparkling—looks as though it might be sticky, but never has any appearance of corruption. I should think the discharge each time might amount to about a half teaspoonful and about double the amount of blood. Latterly it has broken at other times, then only the clear liquid; but has never failed to break at the time of my sickness since I had the operation."

D. A. K. S.

ETHER SPRAY EXTERNALLY IN POST-PARTUM HEMORRHAGE.—Griffiths. (*Practitioner*, March, 1877.) Dr. G. was recently consulted in two cases of severe post-partum hemorrhage. In both cases every means had been adopted but unavailingly. It flashed across his mind in the first case to try the effect of ether-spray, and accordingly he directed a large spray across the abdominal walls, along the spine and over the genitals; the uterus at once responded, and the cessation of the hemorrhage was almost immediate. In the second case, he lost no time in adopting a similar treatment, and with an equally successful result. He has consulted several eminent obstetric practitioners in Dublin, and was informed by them that they were not aware that this treatment has been heretofore proposed. The advantages of the ether spray over the application of cold water, and the other means usually adopted to every practitioner of midwifery, must be apparent

D. A. K. S.

IMPERFORATE HYMEN WITH LARGE ACCUMULATION OF MENSTRUAL FLUID.—Winsor.—(*Boston Medical and Surgical Journal*, July 12th, 1877.) On November 4th, 1875, an American girl, unmarried, aged 17, was seized with dysuria, having urinated but once scantily in twenty-four hours. She had no fever, acceleration of pulse, or pain, except during the attempts to urinate. During the previous year had one or two similar attacks, though less severe. She had never menstruated, nor had any periodic symptoms. Had occasional "stomach ache" in the ovarian regions. She was of average height, but thin and rather feeble. Under medical advice she had been kept out of school, and had taken tonics for the past year. The dysuria continued six hours, when she voided a quart of pale inodorous normal urine. Was given antispasmodics. Twelve days later she again suffered from distressing retention of urine. For a week previous micturition had been "troublesome and painful." She was etherized with a view to overcome spasm, if that was the cause, but no urine flowed. On attempting to pass the catheter, the vulvar opening was found filled by a protruding tumor tense, fluctu-



ating and closely resembling the unruptured membranes of the second stage of labor. The margin of the vaginal tumor was continuous with the walls of the vagina. Palpation showed the abdomen occupied by a median tumor extending above the umbilicus. Here, then, was a firm imperforate hymen, and behind it fluid. The finger in the rectum and a hand over the abdominal portion of the tumor, showed it to be continuous and fluctuating. The bladder was emptied with the catheter without diminishing the size of the tumor. A diagnosis of retained menstrual fluid was made, and Dr. C.E. Buckingham called in consultation and confirmed the diagnosis. Gradual evacuation of the fluid was decided on, and under ether about six ounces of thick, dark brown inodorous fluid was withdrawn through the largest canula of an aspirator, when the canula was withdrawn and the fluid allowed to ooze away. Measurement of the abdominal portions of the tumor showed it, to extend one and a half inches above the umbilicus, and about four inches transversely.

The day following the puncture, December 27th, her pulse was 104, temperature 97°. The discharge kept draining away for four days, when the tumor had diminished at least two-thirds in size, when the discharge became offensive, and a solution of bromo chloralum was injected. That evening the temperature was 103°.

On the fifth day she had great abdominal distress,—face was pinched and anxious; pulse, 110; temperature, 101. Nothing could be passed through the puncture. She was etherized, and an incision made at the seat of puncture that would admit the finger into a roomy vagina, then with scissors the hymen was freely opened up antero-posteriorly and laterally. About a quart of tarry stinking fluid escaped. The vagina and womb were washed out freely with a solution of bromochloralum, and an oiled oakum plug left in the vagina. She was given six grains of quinia four times daily. The next day a petechial eruption was noticed over the trunk on the following day; eight days from the first puncture she had a rigor followed by severe pain in the right iliac region, and symptoms indicating blood-poisoning. Under the use of

brandy, salicylic acid and nourishing food, in the course of a few weeks she recovered from these symptoms without any abscess having formed. She menstruated scantily, February 3d and March 8th; and normally, April 11th, (fourteen weeks after the operation) and every month since. She now weighs thirty-four pounds more than when she left her bed, and is in every way healthy and happy. It has been suggested as an improvement in the operative treatment of such cases, that after the *first* withdrawal of fluid some disinfecting solutions be injected to avoid the danger of septicæmia, while the advantages of gradual drainage are still retained. The risk attending sudden and complete evacuation, is said to be less from so-called "shock" than from the peritonitis induced by laceration of existing adhesions, as the womb suddenly settles down in the pelvis.

D. A. K. S.

**PREMATURE DELIVERY PROVOKED BY THE SOFT SOUND.**—M. Marchal.—(*Gazette Obstétricale*, May 5, 1877.) M. Marchal has brought on labor successfully, 236 days after the end of the last mentioned period, in a woman 37 years of age, presenting an antero-posterior diameter of 8 centimetres (3.15 inches) at the superior strait, and in whom two former labors had been terminated by cephalotripsy.

The proceeding of M. Marchal consists in the introduction of a gum elastic sound, provided with a mandrel which is withdrawn as the top of the sound enters the uterine orifice. If necessary, an intra-uterine injection may be used to separate the membranes over a greater extent of surface.

M. Granjean, following the example of M. Staltz, has made use of a male metallic sound, for the same purpose, obtaining complete success.

L. W. C.

**THE PROPHYLACTIC TREATMENT OF PLACENTA PRÆVIA.**—Thomas.—(*The American Practitioner*, May, 1877.) Induction of premature delivery after the period of viability of the child, is the only method at present which will enable the obstetrician to avert the evils attendant upon the three last months of utero-gestation. In every case of placenta prævia,

where the lives of both mother and child are threatened by repeated hemorrhages, premature delivery should be induced. The only contra-indication claimed to premature delivery is, that less than nine months of intra-uterine life fails to give a child as good a chance for life as one arrived at full term has. Dr. T. says that, "an eight months' child out of the uterus, depending upon pulmonary respiration, has brighter prospect for life than one in the cavity depending for aeration of its blood upon a crippled and bleeding placenta." The author reports eleven cases of premature delivery conducted by him, being the number in full of all his cases of placenta prævia treated by the prophylactic method. Of the eleven cases, labor occurred at the eighth month in seven; of these, one mother died of septicemia, and two children were still-born; of the rest of the cases, (4) two were delivered a little before full term ( $8\frac{1}{2}$  m.). One child was born dead, and one was still-born. In all cases of placenta prævia, premature delivery should not be induced, before the period of viability of the child, unless the life of the mother is threatened. Barnes' dilators were employed to dilate the cervix, as a preparatory step to delivery.

W. F. L.

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#### ANNOUNCEMENTS FOR THE MONTH.

**SOCIETIES**—Mondays, August 6 and 20, Chicago Medical Society.

**CLINICS**—Saturdays, at Rush College, 2 P. M. Surgical, Prof. Gunn. Tuesdays, at Chicago Medical College, 9 A. M. Surgical, Prof. Hyde.

**LECTURES**—Mondays, 4 P. M., at Cook Co. Hospital Necroscopy Theatre. On Pathological Anatomy, Prof. I. N. Danforth.